



过程控制行业 产品选型指南

Catalog 4204-Process

航空航天
环境控制
机电
过滤
流体与气体处理
液压
气动
过程控制
密封与屏蔽



ENGINEERING YOUR SUCCESS.

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派克汉尼汾公司简介

派克汉尼汾公司是世界领先的流体传动产品和系统的专业制造商，并且可以为不同类型的工业领域和服务行业提供精确的解决方案。

- 世界各地拥有292处生产制造厂。
- 8,200多家分销商。
- 超过400,000家客户。
- 超过3,200条生产线。
- 在纽约证券交易所的股票代码为PH。

过程控制

Parker仪器仪表部门在仪表管阀件的设计、制造和销售方面处于全球领先地位，致力于为石油、化工、天然气、电力、水处理、生物医药、半导体制造和分析等行业提供高品质的产品和完善的解决方案。

Parker仪器仪表部门旗下有11个制造工厂和300家分销商，无论您在哪个工业领域，无论您身处何地，您都可以轻松享有Parker国际化的品质服务和技术支持。

全球分销网络

我们的全球分销网络由超过8,200家分销商组成，可以为各个工业领域的客户提供最强有力的综合性技术支持和售后服务。这种全球性的服务体系可以为全球范围的工程项目提供最优质的服务。

服务一流

Parker通过高品质产品的及时供货以及各类增值服务为我们的客户提供一流的服务, 例如Veriflo Division的特快供货服务(ESP), 客户定制化服务和现场制管课程服务。

技术卓越

通过持续不断的关注客户需求, 使得我们的产品不仅能够解决客户的问题, 还能帮助客户分析一些潜在问题和满足行业内涉及的一些特殊需求。

通过使用虚拟工程软件, 派克的工程师们成功的缩短了研发、测试和制造创新产品的时间。

为了能更好的帮助我们的客户设计, 我们产品的2D和3D图纸都可以在线下载。

炉号追踪

派克提供炉号追踪(HCT)以满足或者超过全部应用参数, 确保我们的顾客使用的是高质量的产品, 就像一个为将来买的保险。

这些参数确保高品质的仪表管部件能应用在火电厂、化工精炼厂、通用仪表测量和过程控制领域。这些要求也同样适用于半导体和制药工业。

除了原材料上进行持续不断的监测, 派克还坚持通过正式的文本规范质量保证项目, 控制生产、标记、测试和检测流程, 简洁而全面。



以下不锈钢组件均可提供HCT文件:

- CPI™和A-LOK® 卡套接头
- UltraSeal™和VacuSeal™接头
- 球阀、针阀和单向阀
- 仪表级螺纹接头
- 仪表级焊接接头
- 微型焊接接头
- 阀组和法兰产品
- 过滤器



派克精密仪表接头广泛用于过程控制、电力、石化和天然气等行业，为液体、气体和化学品系统连接提供解决方案。

派克始终坚持为客户设计和制造稳定、可靠、高品质的仪表接头，所有产品的工作压力都符合ANSI B31.3标准。



CPI™ 单卡套接头 (Catalog 4230/4233)

- 由三个零件构成，适用于所有仪表级钢管的连接
- 螺母经二硫化钼涂层处理，可提供良好的润滑并有效防止螺纹咬死
- 卡套经Suparcase™专利硬化技术处理，提高硬度的同时保证了卡套的耐腐蚀性能，确保密封
- 精密加工的接头体密封面可提供良好密封
- 单卡套设计可提供良好的抗振性能
- 在高/低温热循环应用中表现优异



A-LOK® 双卡套接头 (Catalog 4230/4233)

- 符合行业设计标准，适用于所有仪表级钢管连接
- 螺母内壁经镀银处理，减少咬死现象的发生
- 后卡套采用Suparcase™专利硬化技术处理，可有效嵌入钢管，形成可靠的机械密封
- 双卡套设计符合系统使用规范



MPI™ 双卡套接头 (Catalog 4234)

- 中压卡套接头，承压可达15,000psi(1034bar)
- 采用独特的嵌入式外螺纹螺母设计，有效加强对厚壁仪表管的抓紧力
- 加长螺纹提供更好的承载性能和抗振能力
- 螺母经二硫化钼涂层处理，防止螺纹咬死，适用于高温工况
- 节省50%安装和重装的时间



Phastite® 接头 (Catalog 4235-PH)

- 可应用于焊接系统
- 安装过程简便, 无需专业人员安装, 结构保证无失效安装, 安装后可形成高度密封连接
- 氦检漏率 $<1.0 \times 10^{-9}$ scc/sec
- 安装时间只需几秒钟, 有效降低人工成本
- 接头无散件, 出厂前提供预安装
- 永久性推入式接头, 承压达 20,000psi (1379bar)



PIPE 螺纹管接头 (Catalog 4260)

- 材料为抗腐蚀316不锈钢
- 所有管螺纹都符合ANSI B1.20.1要求
- 所有螺纹都有保护套, 为螺纹提供防破坏保护
- NPT和ISO螺纹标准可选



焊接接头 (Catalog 4280)

- 承插焊、对焊和自动对焊接头等多种形式可选
- 符合ASME III和ANSI B31.1和B31.7制造标准
- 永久性无泄漏接头
- 适用于苛刻工况和高温环境, 如蒸气环境

接头	工作压力	连接形式	尺寸范围
CPI™	取决于仪表管承压	单卡套	1/16"-2"/2mm-25mm
A-LOK®	取决于仪表管承压	双卡套	1/16"-2"/2mm-25mm
MPI™	最高15,000psi(1034bar)	嵌入式卡套	1/4"-1"
Phastite®	最高20,000psi(1379bar)	永久推入式	1/4"-1"/6mm-25mm
Weld-lok™	取决于仪表管承压	承插焊	1/8"-2"
Pipe	最高6000psi(414bar)	NPT管螺纹	1/16"-2"
Pipe Adapters	最高6000psi(414bar)	NPT, BSPT和BSPP管螺纹	1/8"-1"

最高推荐工作压力可参考仪表管选型指导Bulletin 4200-T5

球阀/旋塞阀



MB 系列小型球阀 (Catalog 4121-MB)

- 单片式棒材设计, 结构紧凑
- 针对分析行业设计的低压工况 (<10bar)三通球阀
- 专利阀座设计
- 2通、弯通、3通、4通和5通球阀可选
- 符合与其他品牌互换要求



B 系列通用型球阀 (Catalog 4121-B)

- 2通、3通流路可选, 3通分为底部进、侧向出和侧向进、底部出
- 适用温度范围广, -65°F(18°C)到+450°F (232°C)
- 承压可达6000psi (413.7bar)
- 多种阀座、密封材料和接口形式可选
- 接口形式包括CPI™、A-LOK®、NPT螺纹、UltraSeal™超密封和VacuSeal™面密封形式等



SWB 系列三片式球阀 (Catalog 4125-SWB)

- 零间隙设计阀体保证了在线维护的密封性能
- 弹簧加载阀座密封可选
- 封闭式螺栓连接
- 执行器安装符合ISO标准
- 尺寸可达到1"



HB 系列高压球阀 (Catalog 4121-HB)

- 紧凑型FNPT结构应用于狭小空间
- 在任何流向均为全压力额定值, 使系统有通用性
- 尤其适用于CNG应用
- PEEK™耳轴式阀座提高了使用寿命
- PEEK™阀座压力等级10,000psi (689bar)



MPB 系列高压球阀 (Catalog 4234)

- 适用于苛刻工况下的2通、3通球阀
- 90°和180°旋转可选, 用于介质的隔断或流路切换



PR 系列旋塞阀 (Catalog 4126-PR)

- 低扭矩
- 带锁装置, 下游排放口和金属T型手柄可选
- 典型应用于实验室
- 结构最紧凑的90°开关阀



气动/电动执行器 (Catalog 4123)

- 60系列气动执行机构可提供90°和180°旋转, 有双作用和弹簧复位两种形式
- 70和80系列电动执行器可配合我们的B系列、MB系列、HB系列、SWB系列球阀提供90°和180°转向



HBV系列 (Catalog 4190-HBV)

- 适用于石油、天然气和过程控制工业
- 卡套接头可选, 避免使用螺纹和螺纹密封胶
- 两片式阀体设计, 减少泄露途径
- 符合ANSI/ASME B16.34标准
- 符合NACE MR-01-75/ISO 15156材料标准
- 防火选项



20K Hi-Pro球阀 (Catalog 4190-HH/20K)

- 应用于冷作压力 CWP20,000psi(1,379bar)
- 两片式阀体设计
- 双向流通
- 低扭矩
- 在阀杆转动处的Tru-Loc防振锁定系统避免阀杆外漏, 100%保证安全

类型	系列	产品描述	最大工作压力	温度			Cv	阀体材料		驱动形式					阀座/密封件材料						接口尺寸范围		样本		
				Min	Max	Max		铜	合金	手动	气动	电动	PCTFE	Buna-N Rubber	Ethylene Propylene Rubber	Highly Fluorinated Fluorocarbon	Fluorocarbon Rubber	PFA	GRAFOIL®	PEEK	PTFE	Min		Max	
球阀/旋塞阀	MB	小型	3000 psi 207 bar	-65°F -54°C	300°F 149°C	11.00	x	x		x	x	x						x					1/16 in 3mm	3/4 in 12mm	4121-MB
	B	通用型	6000 psi 414 bar	-65°F -54°C	400°F 204°C	6.40	x	x	x	x	x	x	x	x	x				x	x			1/16 in 3mm	3/4 in 12mm	4121-B
	SWB	三片式	2500 psi 172 bar	-65°F -54°C	600°F 316°C	35.00		x		x	x	x		x	x				x	x	x		1/4 in n/a mm	1 in n/a mm	4125-SWB
	HB	高压	10000 psi 689 bar	-65°F -54°C	400°F 204°C	1.00		x		x	x	x	x	x	x					x			1/4 in 6mm	1/2 in 12mm	4121-HB
	MPB	高压	20000 psi 1379 bar	-10°F -23°C	400°F 204°C	8.80		x		x	x	x		x	x	x				x			1/8 in n/a mm	1 in n/a mm	4234
	PR	旋塞阀	3000 psi 207 bar	-10°F -23°C	400°F 204°C	3.20	x	x							x	x	x						1/8 in 3mm	1/2 in 12mm	4126-PR
	HBV	高压	10,000 psi 689 bar	-65°F -54°C	450°F 232°C			x	x	x	x									x	x	x	1/8 in 6mm	1 in 25mm	4190-HBV
	20K HPBV	超高压	20,000 psi 1379 bar	-4°F -20°C	392°F 200°C	1.56		x															1/4 in 6mm	9/16 in 14mm	4190-HH 20K

单向阀



C 系列 (Catalog 4130-C)

- 专用的弹性模压阀座设计 , 3.45, 5.17, 6.9bar)
- 限位阀芯设计, 最大限度的减少弹簧形变
- 开启压力: 1/3, 1, 5, 10, 25, 50 , 75和100psi (.023, .069, .345, .69, 1.72

- 接口形式包括内外NPT螺纹, CPI™单卡套, A-LOK™双卡套, UltraSeal™超密封, VacuSeal™面密封, BSP螺纹, SAE螺纹和Seal-Lok等



CO 系列 (Catalog 4130-CO)

- 适用于密封等级较高的场合, 有预密封功能
- 氦检漏率 $<4.0 \times 10^{-9}$ scc/sec
- 限位阀芯设计最大限度的减少弹簧形变

- 开启压力: 1/3, 1, 5, 10, 25, 50 , 75和100psi (.023, .069, .345, .69, 1.72 , 3.45, 5.17, 6.9bar)
- 高氟化氟橡胶密封可选
- 唯一发布氦检漏率的单向阀



CB 系列 (Catalog 4130-CB)

- 提高了双燃料燃机功效, 减少维护
- 开启压力: 1, 5, 10, 25, 50, 75 , 100和120psi (.023, .069, .345, .69, 1.72 , 3.45, 5.17, 6.9, 8.27bar)

- 采用针对燃机恶劣燃油状况而设计的特殊球状内部结构
- 用于高粘度介质的高温应用



MPC 系列 (Catalog 4234)

- 多种弹性阀芯密封材料可选
- 开启压力5psi(.345bar)

- MPI™,中高压C&T螺纹, NPT内螺纹接头可选
- 工作压力可达 20,000psi(1379bar)



MPCB 系列 (Catalog 4234)

- MPI™, 中高压C&T螺纹, NPT内螺纹接头可选
- 应用压力高达 20,000psi(1379bar)
- 金属密封, 应用于不能使用氟橡胶的场合
- 开启压力5psi(.345bar)



LC 系列 (Bulletin 4130-LC)

- 重力阀芯保证其反向密封能力 达到正向流通能力的0.1%
- 用于高温工况

类型	系列	最大工作压力	温度		Cv	开启压力	阀体材料		密封材料								接口形式		样本
			Min	Max			Max	Max	铜	不锈钢	Parkerfill/ Parkercarbon	Buna-N Rubber	Ethylene Propylene Rubber	Highly Fluorinated Fluorocarbon	Fluorocarbon Rubber	Neoprene Rubber	Metal	PTFE	
单向阀	C	6000 psi 414 bar	-65°F -54°C	400°F 204°C	6.70	100 psi 6.9 bar	x	x		x	x	x	x	x		x	1/8 in 3 mm	1 in 25 mm	4130-C
	CO	6000 psi 414 bar	-15°F -26°C	400°F 204°C	2.70	100 psi 6.9 bar		x		x	x	x					1/4 in 6 mm	1/2 in 12 mm	4130-CO
	CB	3000 psi 207 bar	-65°F -54°C	450°F 232°C	6.00	120 psi 8.27 bar		x	x								3/8 in	3/4 in	4130-CB
	MPC	20000 psi 1379 bar	-10°F -23°C	400°F 204°C		5 psi .345 bar		x		x	x	x	x				1/4 in	1 in	4234
	MPCB	20000 psi 1379 bar	-100°F -73°C	600°F 316°C		5 psi .345 bar		x							x		1/4 in	1 in	4234
	LC	6000 psi 414 bar	-100°F -73°C	900°F 482°C	2.30			x							x		1/8 in	1/2 in	4130-LC

过滤器



F 系列 (Catalog 4130-F)

- 316不锈钢烧结滤芯可更换
- 250微米和450微米金属丝网滤芯可选



FT 系列 (Catalog 4130-FT)

- 滤芯可在线更换
- 快速旁通回路可选, 拥有持续自净流路
- 316不锈钢烧结滤芯可更换
- 250微米和450微米金属丝网滤芯可选



MPF 系列 (Catalog 4234)

- 应用压力可达 20,000psi(1,379bar)
- 终端过滤器可保护下游贵重仪器设备
- 316不锈钢烧结滤芯
- MPI™,中高压C&T螺纹, NPT内螺纹接头可选

类型	系列	产品描述	最大工作压力	温度		Cv	过滤精度	阀体材质		密封材料						接口尺寸		样本	
				Min	Max			Max	铜	不锈钢	Fluorocarbon Rubber	Buna-N Rubber	Ethylene Propylene Rubber	Highly Fluorinated Fluorocarbon	Neoprene Rubber	PTFE	Silver Plated		Min
过滤器	F	直通	6000 psi 414 bar	-65°F -54°C	400°F 204°C	3.40	.5 到 500	x	x	x	x	x		x	x		1/8 in 3mm	1 in 25mm	4130-F
	FT	T型	6000 psi 414 bar	-100°F -73°C	900°F 482°C	2.50	.5 到 500	x	x	x	x	x	x	x	x	x	1/8 in 6mm	1/2 in 12mm	4130-FT
	MPF	高压	20000 psi 1379 bar	-10°F -23°C	400°F 204°C	0.59	.5 到 100		x						x		1/4 in	9/16 in	4234

安全阀



RL4 系列 (Catalog 4131-RL)

- 用于现场维护
- 当阀门在工作状态时, 可在线调节压力设置值
- 七种压力范围弹簧可选
- 在工作压力范围内均可手动卸荷并可自动回复原位
- 不同颜色的弹簧和标签对应不同的压力范围



RH4 系列 (Catalog 4131-RH)

- 八种压力范围弹簧可选
- 在0~1,500psi(103bar)压力范围内均可手动卸荷并可自动回复原位
- 出厂前预设并装配标准弹簧



HPRV 比例安全阀 (Catalog 4190-HPRV)

- 模压阀座防吹出, 防破裂设计
- 不同颜色的弹簧和标签对应不同的压力范围
- 独特的Tru-Loc锁盘设计确保安全可靠
- 多种连接形式可选
- 低摩擦阀杆密封设计有效防止摩擦, 提高了开启压力和复位密封压力的精确性
- 平衡式阀芯设计确保了开启压力的稳定, 不受系统背压影响

类型	系列	最大工作压力	温度		Cv Max	阀体材料		密封材料					接口尺寸		样本
			Min	Max		不锈钢	Buna-N Rubber	Ethylene Propylene Rubber	Highly Fluorinated Fluorocarbon	Fluorocarbon Rubber	Neoprene Rubber	Min	Max		
安全阀	RL	400 psi 28 bar	-70°F -57°C	400°F 204°C	0.8	x	x	x	x	x	x	1/4 in 6mm	1/4 in 8mm	4131-RL	
	RH	6000 psi 414 bar	-70°F -57°C	400°F 204°C	0.4	x	x	x	x	x	x	1/4 in 6mm	1/4 in 8mm	4131-RH	
	HPRV	6000 psi 414 bar	-45°F -43°C	250°F 121°C	0.41	x		x	x	x		1/4 in 6mm	1/4 in 6mm	4190-HPRV	

排放/吹扫阀



BV 系列 (Catalog 4133-BP)

- 推荐用于液压排放系统
- 将可接排放管线至大气或收集在容器中
- 可配套多路阀组或表阀/根阀使用



PG 系列 (Catalog 4133-BP)

- 螺母上设有独特的反向排放口, 排放口不朝向操作者
- PTFE球可选, 只需手紧即可达到无泄漏
- 螺母有防扭出设计, 确实保障操作者安全

类型	系列	最大工作压力	温度		Cv 0.1	阀体材料			接口尺寸		样本
			Min	Max		铜	不锈钢	合金	Min	Max	
排放阀	BV	10000 psi 690 bar	-65°F -54°C	850°F 454°C	x		x	x	1/4"	1/2"	4131-BP
	PG	4000 psi 276 bar	-65°F -54°C	400°F 204°C		x	x	x	1/8"	1/2"	4131-BP
	MPBV	30000 psi 2068 bar	-10°F -23°C	400°F 204°C			x		9/16"	9/16"	4234

计量阀



N 系列 (Catalog 4170-N)

- 面板或管路安装
- 直通形式和弯通形式
- 阀杆处螺纹与介质隔离



HR 系列 (Catalog 4170-HR)

- 气密密封
- 优秀的设计与制造技术, 保证阀门精调调节的一致性
- 七种形式调节手柄可选

类型	系列	最大工作压力	温度		Cv Max	阀体材料		阀座材料					接口尺寸		样本
			Min	Max		铜	不锈钢	Buna-N Rubber	Ethylene Propylene Rubber	Highly Fluorinated Fluorocarbon	Fluorocarbon Rubber	Neoprene Rubber	Min	Max	
计量阀	NS	2000 psi 138 bar	-50°F -46°C	400°F 204°C	0.040	x	x	x	x	x	x	x	1/16 in 3mm	1/4 in 6mm	4170-N
	NM	1000 psi 69 bar	-50°F -46°C	400°F 204°C	0.100	x	x	x	x	x	x	x	1/8 in 3mm	1/4 in 6mm	4170-N
	NL	1000 psi 69 bar	-50°F -46°C	400°F 204°C	0.200	x	x	x	x	x	x	x	1/8 in 6mm	3/8 in	4170-N
	HR	250 psi 17 bar	-50°F -46°C	400°F 204°C	0.100	x	x	x	x	x	x	x	1/16 in 3mm	1/4 in 6mm	4170-HR

针阀



V 系列 (Catalog 4110-V)

- 实现可靠开关和流量调节
- 三种阀杆形式可选
- 尺寸范围广, 接口形式多样



SN6 系列 (Catalog 4110-SN)

- 用于流体隔断和流量粗调
- 两种阀杆形式可选
- 直通和角阀可选
- 可用作钢瓶阀



VQ 系列 (Catalog 4110-VQ)

- 直通/角阀两种形式可选
- 多种手柄颜色可选
- 可面板安装
- 低压工况下能快速打开



NP6 系列 (Catalog 4110-NP)

- 两级非旋转阀杆设计
- 填料位于螺纹之下设计, 使介质与螺纹隔离
- 可面板安装
- 防破裂尼龙手柄, 多种颜色可选



PV 系列 (Catalog 4110-PV)

- 大通径, 直流道设计
- 阀帽锁盘防止了阀帽的意外脱出, 确保密封
- 阀座材料PEEK™, Acetal, PFA可选
- 压力表接头可选



U 系列 (Catalog 4110-U)

- 阀杆填料位于螺纹之下, 使介质与螺纹隔离
- 用于高温高压苛刻工况
- 可面板安装
- 理想应用于电厂蒸气管路排污



HNV系列 (Catalog 4190-HV)

- 紧凑型针阀
- 工作压力可达 10,000psi(690bar)
- CPI™/A-LOK®单双卡套接头可选, 减少泄漏点, 降低安装成本
- 在气体应用场合可选用软阀座



RPV 系列 (Catalog 4190-HV)

- 适用于高污染级别和高温工况, 常用于油气处理厂
- 直通流道设计
- 气密密封



HGV 系列 (Catalog 4190-HV)

- 承压可达10,000psig (690barg)
- 结构紧凑, 单个和多个仪表接口可选
- 在气体应用场合可选用软阀座

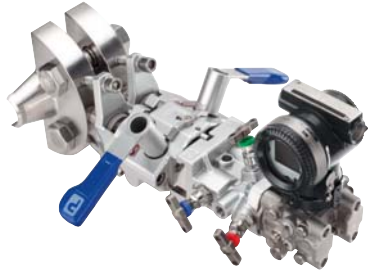


H 系列 (Catalog 4190-H)

- 应用于冷工作压力 6000psi (414kg)
- 工艺阀ANSI/ASME B.16.34设计 2500ILbs
- 完全符合NACE MR-01-75/ISO15156
- 12.7mm大通径设计
- 独特Tru-Loc锁盘设计, 确保安全, 防振动

类型	系列	最大工作压力	温度		Cv Max	阀体材料		驱动形式		阀座材料							接口尺寸		Catalog	
			Min	Max		不锈钢	合金	手动	气动	PTFE	Buna-N Rubber	Ethylene Propylene Rubber	Highly Fluorinated Fluorocarbon	Fluorocarbon Rubber	Silicon Rubber	GRAFOIL*	Min	Max		
针阀	V	6000 psi 414 bar	-65°F -54°C	450°F 232°C	1.30	x	x	x		x	x	x						1/8 in 3mm	3/4 in 12	4110-V
	SN6	6000 psi 414 bar	-65°F -54°C	450°F 232°C	0.30	x		x		x						x		1/4 in	1/4 in	4110-SN
	VQ	300 psi 21 bar	-20°F -29°C	200°F 93°C	0.80	x		x	x	x	x	x	x	x				1/8 in 3mm	1/2 in 10mm	4110-VQ
	NP6	6000 psi 414 bar	-70°F -57°C	700°F 371°C	0.60	x		x		x	x	x	x	x	x			1/4 in 6mm	3/8 in 8mm	4110-NP
	PV	6000 psi 414 bar	-20°F -29°C	400°F 204°C	2.00	x		x			x	x	x	x	x			1/4 in	3/4 in	4110-PV
	U	6000 psi 414 bar	-65°F -54°C	1200°F 649°C	2.70	x		x		x					x			1/8 in 6mm	1 in 25mm	4110-U
	MPN	20000 psi 1379 bar	-65°F -54°C	800°F 427°C		x		x	x	x					x			1/4 in	1 in	4234
	MPGV	30000 psi 2068 bar	-10°F -23°C	400°F 204°C		x		x			x	x	x	x				9/16 in	9/16 in	4234
	HNV	10000 psi 690 bar	-65°F -54°C	1000°F 538°C	0.35	x	x	x		x						x		1/4 in 6mm	1/2 in 12mm	4190-HV
	HRPV	10000 psi 690 bar	-65°F -54°C	1000°F 538°C	1.80	x	x	x		x						x		1/4 in 6mm	1/2 in 12mm	4190-HV
	HGV	10000 psi 690 bar	-65°F -54°C	1000°F 538°C	0.35	x	x	x		x						x		1/4 in 6mm	1/2 in 12mm	4190-HV
	HVG	6000 psi 414 bar	-65°F -54°C	1000°F 538°C	0.35	x	x	x		x						x		1/4 in 6mm	1/2 in 12mm	4190-HV
	HYNV	10000 psi 690 bar	-65°F -54°C	1000°F 538°C	0.35	x				x						x		1/4 in 6mm	1/2 in 12mm	4190-HV
	H	6000 psi 414 bar	-65°F -54°C	1200°F 649°C	2.90	x	x	x		x						x		1/2 in 12mm	1 in 25mm	4190-H

阀组



CCIMS® (Catalog 4190-CCIMS)

- 应用于流量测量领域的紧凑型安装解决方案
- 减少75%的安装时间
- 减少高达85%的连接点和泄漏途径
- 专利的phastfit结构将变送器的拆卸和安装变得方便快捷



Monoflange (Catalog 4190-FP)

- 紧凑型一体化双隔断法兰阀组, 通用针阀结构设计
- 大大降低安装成本, 并减少泄漏点, 提高安全性
- 多种规格选项可选, 包括单隔断、双隔断和双隔断单排放
- 多种材料可选, 包括碳钢、不锈钢、双相钢和Alloy 625等特殊合金



Pro-Bloc® (Catalog 4190-FP)

- 独特一体化双隔断法兰阀组, 针阀和球阀形式可选
- 降低安装成本的同时通过减少漏点, 提高安全性
- 多种规格选项可选, 包括单隔断、双隔断和双阻隔单排放
- 多种材料可选, 包括碳钢、不锈钢、双相钢和Alloy 625等特殊合金



Monoflange(Fe)&Pro-Bloc(Fe)(Catalog 4190-FP)

- 通过ISO15848认证
- 满足最高的泄露等级'A'级
- 所有球阀都是双向流通
- 防火设计可选
- 所有螺纹与介质隔离



2/3/5阀组 (Catalog 4190-PM/4190-FM)

- 用于压力和流量测量的2/3/5阀通用阀组
- PTFree接头可选, 无需生胶带, 减少泄漏点和安装成本
- 多种材质可选, 包括不锈钢、Hastelloy、6Mo、Monel和Alloy 625等特殊合金
- 可选择与变送器直接安装或远程安装



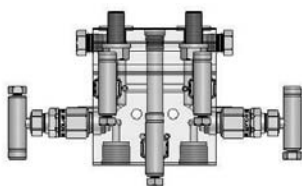
HBM 系列 (Catalog 4190-HBM)

- 阀组可选用球阀(10mm通径)和针阀多种规格形式可选, 包括单隔断单排放和双隔断单排放阀组
- 工作压力可达10,000psi(690bar)
- A-LOK® 或CPI™卡套连接方式可选, 可减少漏点和安装成本



冲洗环:

- 专业型一体化冲洗环, 便于安装维护
- 拆卸法兰液位变送器与液位一次门之间绝不松脱
- 可提供蒸汽伴热选项
- 拒绝传统冲洗环在安装过程中出现的五层夹心饼结构



直通型阀组:

- 相对迷宫型阀组更容易维修
- 维护更方便快捷
- 同样的通径具有更大的Cv值, 完美配合DN10压力引管概念
- 及其适于粘稠介质工况下使用

类型	系列	产品描述	最大工作压力	温度		阀体材料			填料			阀座			接口尺寸范围		样本
				Min	Max	碳钢	不锈钢	合金	GRAFOIL®	PTFE	316SS	PEEK™	PCTFE	PTFE	Min	Max	
阀组	MF	双隔断和排放	ANSI2500 API10000	-65°F -54°C	1000°F 538°C	X	X	X	X	X	X	X	X	1/4in 6mm	1/2in 12mm	4190-FP	
	PB	双隔断和排放	ANSI2500 API10000	-65°F -54°C	450°F 232°C	X	X	X	X	X		X	X	1/4in 6mm	1in 25mm	4190-FP	
	H2	2阀组-针阀形式	10000psi 689bar	-65°F -54°C	1000°F 538°C		X	X	X	X	X	X	X	1/4in 6mm	1/2in 12mm	4190-PM	
	H3	3阀组-针阀形式	10000psi 689bar	-65°F -54°C	1000°F 538°C		X	X	X	X	X	X	X	1/4in 6mm	1/2in 12mm	4190-FM	
	H5	5阀组-针阀形式	10000psi 689bar	-65°F -54°C	1000°F 538°C		X	X	X	X	X	X	X	1/4in 6mm	1/2in 12mm	4190-FM	
	HBM	2&3阀组-球阀形式	10000psi 689bar	-65°F -54°C	450°F 232°C		X	X	X	X		X	X	1/4in 6mm	1/2in 12mm	4190-HBM	

膜阀



NOVA 系列 (Catalog 4515)

- 通用型, 使用寿命长, 结构紧凑
- 多种手柄形式可选
- 用于减压阀出口控制阀, 气体控制面板和分析取样系统



NOVA AOP (Catalog 4515)

- 通用型, 使用寿命长, 结构紧凑
- 用于减压阀出口控制, 气体控制面板和取样分析系统
- 常开和常闭两种形式可选
- 多种气控执行压力可选



NV55 (Catalog 4515)

- 通用型, 小体积, 大流量
- 可用于流量较大的腐蚀性流体场合



FS190 (Catalog 4515)

- 过流关断阀
- 手动和气动控制可选
- 阀门功能不受安装位置影响(可水平、竖直、倾斜安装)
- 六种压力/流量设定范围
- 焊接接头和1/4"NPT内螺纹接头可选
- 清晰的显示操作位置—“打开(重置)”或者“自动(关闭)”



944AOPHPNCSP (Catalog 4515)

- 高压气动膜阀
- 性能可靠、精确控制
- 采用液压气动执行机构, 执行更安全可靠
- 1/4" NPT内螺纹



16 系列 (Catalog 4515)

- 高压膜阀, 用于气体分配/气柜应用
- 316不锈钢机加工阀体
- 金属对金属膜片密封
- 阀门无填料设计

类型	系列	产品描述	最大工作压力	温度		Cv			阀体材料			驱动形式		样本
				Min	Max	0.1	0.3	0.6	铜	不锈钢	合金	手动	气动	
膜阀	NOVA	膜片式设计 无弹簧结构	250psig 17barg	-15°F -26°C	150°F 66°C	X			X	X	X	X		4515
	NOVA AOP	膜片式设计 无弹簧结构	125psig 9barg	-15°F -26°C	150°F 66°C	X			X	X	X		X	4515
	NV55	膜片式设计 无弹簧结构	250psig 17barg	-15°F -26°C	150°F 66°C			X		X		X	X	4515
	944AOPHPNCSP	膜片式设计 无弹簧结构	3500psig 241barg	-40°F -40°C	150°F 66°C		X			X			X	4515
	16系列	膜片式设计 弹簧结构	3000psig 207barg				X			X		X	X	4515

减压阀



NPR4100 (Catalog 4511)

- 适用于负压调节
- 内腔无螺纹设计
- Hastelloy C-22波纹膜片
- 适用于传输低气压
- 白色手柄表示负压



IR4000 系列 (Catalog 4511)

- 内腔无螺纹设计
- Hastelloy C-22波纹膜片
- 316L不锈钢、铜、Monel、Hastelloy C-22等材料可选
- 在一氧化氮和碳氢化合物应用场合能有效密封
- 内腔残余容积小
- 适合实验室、分析系统及半导体领域中的常规应用



IR5000 系列 (Catalog 4511)

- 内腔无螺纹设计
- 大尺寸Hastelloy C-22波纹膜片
- 灵敏度高, 用于精确压力控制
- 适用于分析系统中气体控制和仪表校准



HFR900 (Catalog 4511)

- 大流量减压阀
- 嵌入式可更换阀座
- 可用于腐蚀性流体
- 316L不锈钢和铜材料可选



HFR1200 (Catalog 4511)

- 大流量减压阀
- 进口压力可达1,250psi(86bar)
- Cv值1.2
- 大尺寸的感压膜片可提供稳定的压力控制



IR6000 系列 (Catalog 4511)

- 两级减压阀
- 内腔无螺纹设计
- Hastelloy C-22波纹膜片
- 316L不锈钢、铜、Monel、Hastelloy C-22等材料可选
- 消除供气压力的影响, 适用于进口压力较大, 出口压力精度要求较高的场合
- 用于精炼厂、分析系统和特气生产厂的钢瓶气减压



APR66 (Catalog 4511)

- 活塞式感应高压减压阀
- 低执行扭矩
- 压力可达6,000psig (413.7 bar)
- 316L不锈钢和铜可选



Quantum 959 (Catalog 4511)

- 膜片/阀芯一体式减压阀, 降低减压阀爬升现象的发生
- 内腔无螺纹设计
- 金属对金属膜片密封
- 316L不锈钢、铜和Hastelloy C-22可选



DM3000 (Catalog 4518)

- 表面安装微型减压阀
- 符合ANSI/ISA SP76.00.02标准的模块化接口设计
- 螺纹与介质隔离设计
- 峰值抑制从而提高流量稳定
- 实现快速吹扫

类型	系列	形式	压力		Cv		阀体材料				接口形式				样本
			最大进口压力	最大出口压力	Min	Max	316L SS	Brass	Hastelloy C-22	MONEL	Min FNPT	Max FNPT	卡套	面密封或焊接	
单级减压阀	NPR4100	负压	25psig 17barg	-26inHg10psig -1.8inHg0.7barg	0.02	0.15	X	X	X	X	1/8"	3/8"	X		4511
	IR4000	通用	4000psig 276barg	500psig 34barg	0.02	0.15	X	X	X	X	1/8"	3/8"	X		4511
	IR5000	低压	3500psig 241barg	250psig 17barg	0.02	0.15	X		X		1/8"	1/2"	X		4511
	HFR900	大流量	500psig 34barg	150psig 10barg	0.85	0.85	X				1/4"	1/2"	X		4511
	APR66	高压	6000psig 414barg	6000psig 414barg	0.04	0.04	X	X			1/8"	1/4"			4511
	Quantum 959	膜片阀芯一体式	3500psig 241barg	150psig 10barg	0.04	0.20	X		X		1/4"	1/4"		X	4511
	DM3000	表面安装					X								4511
	HF1200	大流量	1250psig 86barg	200psig 14bar			X				1/2"	3/4"	X	X	HF1200

背压阀



ABP1 (Catalog 4510)

- 减少污染物产生并可精确控制背压
- 可靠的膜片限位, 增大使用寿命
- 316L不锈钢、铜、Hastelloy C-22和Monel可选
- 内腔无螺纹设计
- Hastelloy C-22波纹膜片



ABP3 (Catalog 4510)

- 可靠的膜片限位, 增强寿命
- 316不锈钢, 铜和Hastelloy C-22可选
- 内腔无螺纹设计
- 大膜片高灵敏度设计
- 大尺寸Hastelloy C-22波纹膜片



BPR50 (Catalog 4510)

- 可用于腐蚀性流体
- 活塞式感压高压背压阀
- 调节范围从100psi(6.7bar)到2000psi (138bar)
- 材质为316L不锈钢

类型	系列	形式	压力		Cv		阀体材料			接口形式		样本
			最大进口压力	Min	Max	316L SS	Hastelloy C-22	Monel	Min FNPT	Max FNPT		
背压阀	ABP1	通用	500psig 34barg	0.06	0.30	X	X	X	1/8"	1/4"	4510	
	ABP3	低压	60psig 4barg	0.06	0.30	X	X		1/8"	1/4"	4510	
	BPR50	高压	2500psig 172barg	0.45	0.45	X			1/4"	1/4"	4510	

气化减压阀



AVR3 (Catalog 4512)

- 蒸气加热设计
- 内腔无螺纹设计
- 316不锈钢, Monel材料可选
- 阀内腔容积只有0.5cc
- Hastelloy C-22波纹膜片



AVR4 (Catalog 4512)

- 电加热设计
- 现场可对热交换部件进行维修
- 经CSA, Cenelec和ATEX认证
- 内腔无螺纹设计
- 120v或240v, 50/60Hz
- Hastelloy C-22波纹膜片
- 316L不锈钢, Monel材料可选

类型	系列	形式	压力		Cv		阀体材料		接口形式		Catalog
			最大进口压力	最大出口压力	Max	Min	316L SS	MONEL	Min FNPT	Max FNPT	
气化减压阀	AVR3	蒸气加热	4000psig 276barg	500psig 34barg	0.06	0.06	X	X	1/8"	1/8"	4512
	AVR4	电加热	4000psig 276barg	500psig 34barg	0.06	0.06	X	X	1/8"	1/8"	4512



Porter 仪器仪表

派克汉尼汾公司的Porter工厂专注于设计和制造在小流量工作状态下, 对于气体和液体实现精密测量与控制的仪器仪表。

PORTER
www.parker.com/porterinstrument



气体质量流量控制器 (FM-1041 & FM 441)

- 流量范围从0-5 sccm 到 0-1000slpm (氮气)
- I/O (输入&输出) 可选模拟和数字信号
- 设定点的响应时间不超过1sec
- 可实现本地/远程设置/显示
- 控制精度可达实际流量的1%



数字液体质量流量控制器 (FM-998)

- 热式测量系统测量准确, 流体温度上升不超过5°C
- 专利控制电路与压电执行控制阀在低流量范围提供快速、稳定的控制



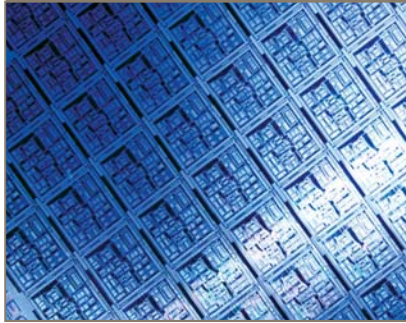
浮子流量计 (Catalog FM-1058)

- 65mm和150mm流量管可选
- 流量管和阀可更换, 可根据需求在线变更结构
- 阀体可选择一体式锻造或侧板式结构



仪表减压阀 (Catalog FM-1057)

- 所有型号均为直动式, 无泄放。满足仪表分析系统装置清洁度要求
- 可选择特殊位置接口、阀块安装结构或将减压阀集成到仪器设备中
- 专为低流量管路提供高精度的控制, 典型应用于仪表系统



含氟聚合物产品

持久耐用, 无泄漏的含氟聚合物产品广泛应用于各种工业领域, 包括半导体制造、化工、食品、制药、生物以及分析仪器。

www.parker.com/partek
(Catalog PSM Partek)

Partek含氟聚合物(PFA/PTFE)产品应用于压力低于120 psig(8.27barg), 温度不超过400F(204°C)的任何超高纯或腐蚀性化学品的理想选择。

含氟聚合物阀门及接头具有很好的耐腐蚀性, 并可确保介质/系统的洁净度。所有产品的接触介质表面均为耐腐蚀PFA或PTFE材质。Partek产品可提供的尺寸范围从1/8"至1"。

- Parflare**扩口接头**: 可用于侧向负载和振动工况, 内腔残余容积小, 减少粒子滞留和细菌增长。
- Pargrip PFA**卡套接头**: 适用于要求安装简便的场合, 组装无需特殊工具, 软管无需预先开槽。
- Parbond PFA**熔接接头**: 为永久式焊接连接, 避免螺纹连接和消除滞留区域, 是无泄漏的连接方式, 适合大流量、低压降应用。
- PFA**螺纹管接头**: 可提供多种形式的标准NPT螺纹接头, 安装时使用PTFE生胶带。
- PFA**阀门, 压力表保护器, 热电偶接头和喷枪**: 高循环使用寿命, 全部由含氟聚合物制造, 已得到多年成功应用。
- PTFE**阀门, 减压阀, 流量计**: 接触介质的区域全部由含氟聚合物PFA/PTFE制造, 抗腐蚀性卓越, 使用寿命长。





我们为全球石化/化工分析市场提供完善可靠的分析系统，适用于环境监测、实验室和化工实验装置领域，同样，它们也是电力和医药分析的基础。

没有任何其他供应商可以像Parker一样提供如此完整、先进和具有针对性的取样分析系统。



在线分析用尾气排放压力稳定系统 (Bulletin 4141-VR)

- 系统包括接头，阀门，流路切换阀，减压阀和测量仪表等
- 具有工程预置、结构紧凑、免维护等特点
- 系统可随供气流量和压力的变化而调整。
- 行业中唯一在样品气排放分析应用中能满足环境要求标准的系统



Vent Master™ 尾气排放系统 (Catalog 4142-VM)

- 系统包括减压阀、仪表、浮子流量计、喷射器和压力控制器
- 具有工程预置、结构紧凑、免维护等特点
- 行业中唯一在样品气排放分析应用中能满足环境要求标准的系统
- 为分析仪建立稳定的分析压力
- 在排放流量为0-18slpm和火炬烟囱燃烧器背压为20psi时，分析精度可达±0.6%



IntraFlow™ 模块式分析预处理系统 (Catalog 4250)

- 模块式表面安装仪表系统
- 符合SA/ANSI SP 76.00.02标准
- 所有元件均达到Gen 2 & 3 NeSSI技术标准
- 工作压力范围从真空到500psig(34barg)
- 可提供系统设计软件



R-max™ 模块式多流路切换系统 (Catalog 4140-R)

- 表面安装多流路切换系统
- 工作压力范围从真空到 500psig(34barg)
- 气控操作压力低-40psig(-2.76)
- 内腔小, 减少系统吹扫时间



ChangeOver 连续供气系统 (Catalog 4511)

- 紧凑式模块化系统解决方案, 用于提供持续的气体供应
- 可配置减压阀控制出口压力
- 提供可听/可视报警器
- 316L不锈钢和铜可选
- 可用于氧气环境



Push-Lok® 软管 (Bulletin 4281-B1-US)

- 独特密封使其具备良好的可靠性和耐久性, 适用于洁净场合
- 安装无需扣压或其他特殊工具
- 内衬为合成橡胶, 适用于石油、空气和水等介质。



快换接头 (Catalog 4220)

- 防溢出设计减少了断开时的流体损失
- 在连接过程中使空气的混入量最小化
- 配套双隔断嵌入阀, 适用于腐蚀性环境隔绝介质, 增强密封
- 工作压力范围从300 psi到5,000 psi



金属软管 (Catalog 4690-MH)

- 用于其它软管不能满足要求的苛刻工况
- 温度可高达1,500°F(816°C)
- 通常用于输送液化氮
- 渗透率比其他软管低



Multitube® 多芯管和伴热管 (Catalog 4200-M-2)

- 多种结构可选, 包括电伴热和蒸气伴热等
- 用于传输, 控制气动信号, 气体和液体
- 材质包括铜, 不锈钢, 合金和 PFA/PTFE等



制管工具 (Catalog 4290)

- 高品质的手动弯管工具, 割管刀, 去毛刺工具和预安装工具。
- 弯管器尺寸从1/8" 到 1"
- 割管刀用于切割316不锈钢钢管
- Par-Lok扳手可360°快速动作, 灵活简便
- 预安装工具适用于狭窄空间里的管接头装配



取样钢瓶 (Catalog 4160-SC)

- 承压1,800psi, DOT 等级
- 不锈钢结构
- ANSI/ASME B1.20.1内螺纹



铜质快插接头 (Bulletin 3531-QRG/USA)

- Prestolok®铜质和Prestolok II®复合式接头用于尼龙, 聚乙烯, 聚氨酯和金属软管
- 主要应用于气动领域
- 配套不锈钢卡环, 无需内衬套
- 安装不需要工具
- 适用于侧向负载



Texas 热电偶管 (Catalog 4240)

- 法兰式热电偶管有局部渗透和全渗透焊接形式
- 每个热电偶接头均可提供HCT炉号追踪
- 多种特殊合金材料可选

卫生级和生物制药产品

Compression Fittings



在食品，饮料，奶制品和生物制药过程控制工业，派克拥有包括接头，阀门和相关过程控制产品等全套产品线。

所有产品均能满足或超过这些行业的标准。



卫生级接头 (Catalog 4270)

- 连接方式有对焊, 扣压, 锥面密封以及其他安装方式
- 应用于制药和生物领域的 ASME-BPE接头
- 表面光洁度从BA级到EP级 (10RA电抛光) 可选
- 多种转换接头可选, 螺纹连接, 承插焊, 法兰连接, DIN连接



卫生级阀门 (Catalog 4270-VFC)

- 卫生级阀门包括三片式球阀, 蝶阀, 单向阀和取样阀
- 玻璃材质可选, 流道可视
- 电动和气动执行器可选, 并辅以配套的限位开关、位置传感器及电磁阀



垫圈 (Catalog 4270)

- 卫生级垫片和O型圈满足3A和医药Class 6标准
- 多种尺寸和材料可选, 如 Buna, EPDM, 聚硅酮, PTFE, SFY 和特殊化合物, 可应用于特殊场合
- 多种颜色的color-grip垫片可选, 满足SOP要求并减少交叉污染
- 网眼式, 小孔式, 扣压式和锥形垫圈可选, 应用于工况苛刻和特殊的场合

Solutions for Photovoltaics Manufacturing

For Production Tools & Process Applications

- » Gas Delivery Systems
- » Liquid Chemical Delivery Systems
- » Custom Engineering



Uniquely equipped to pioneer solar technologies

Gas Systems

Parker Hannifin's Veriflo Division, located in Richmond, California, is the leading manufacturer of high purity and ultra high purity gas flow control devices and assemblies. These products are used to control high purity gases that are integral to the manufacture of photovoltaic cells, semiconductor wafers / chips, and flat panel displays. Veriflo products are also used by Original Equipment Manufacturers (OEMs) within these industries. Veriflo has maintained industry leadership for over 95 years through the use of innovative engineering, manufacturing, and quality customer care.

Broad Product Range

Most comprehensive line of high purity and ultra high purity gas flow control devices for the PV industry:

- » Mass Flow Controllers
- » Bulk Gas Valves
- » DISS Cylinder Connections
- » Diaphragm Valves and Bellows Valves
- » Single and Dual Stage Pressure Regulators
- » Check Valves

Broad Materials Range

Everything from Ultra-High Purity Stainless Alloys to Industrial Grade Materials.

To find out more about our gas delivery systems solutions, please call (510) 235-9590.

Liquid Chemical Systems

Parker Hannifin's Partek Operation, located in Tucson, Arizona, has a long history of innovation in the ultra high purity (UHP), chemical delivery market. Partek specializes in the design and manufacture of flow components produced from virgin grades of high purity thermoplastics. Our extensive knowledge of materials and manufacturing results in industry leading designs which provide many advantages to our customers. Our fluid control solutions enable end users to increase their throughput, ensure chemical purity, and to reduce expensive downtime in the exceedingly cost conscious world of solar cell production.

Extensive Material Knowledge

Our facilities can manufacture everything from ultra-high purity Fluoropolymer to Industrial Grade Plastics:

- » PFA/PTFE Diaphragm Valves
- » PFA tube fittings
- » Check, Needle, Ball, Plug, and Stopcock Valves
- » Pressure Regulators
- » Custom Manifolds

Application Specific Materials

Understanding the needs of the solar industry means offering a wide variety of materials to suit specific applications. For a complete list, please call us at (520) 574-2600.



Since the inception of the semiconductor industry, Parker Hannifin Corporation has been a leader in the development and production of high purity manufacturing solutions. Now, because of similarities in the needs of the Solar industry, Parker is uniquely equipped to pioneer solar specific solutions.

Our most valuable assets are our experienced and dedicated work force. Our engineering and manufacturing staffs have decades of experience working directly with fabricators as well as OEM tool suppliers. Since the establishment of silicon processing technology we have been helping companies to achieve their goals of increased profitability and competitiveness in a rapidly changing world.

World-Wide Distribution

Since Parker Hannifin's founding in 1918 we have been growing as a global force in the motion and fluid control industry. This long history has resulted in a vast global network of distributors, manufacturing facilities, sales staff and field engineers whose main purpose is to support your product needs. Please visit our website at www.parker.com for a listing of Parker representatives near you.

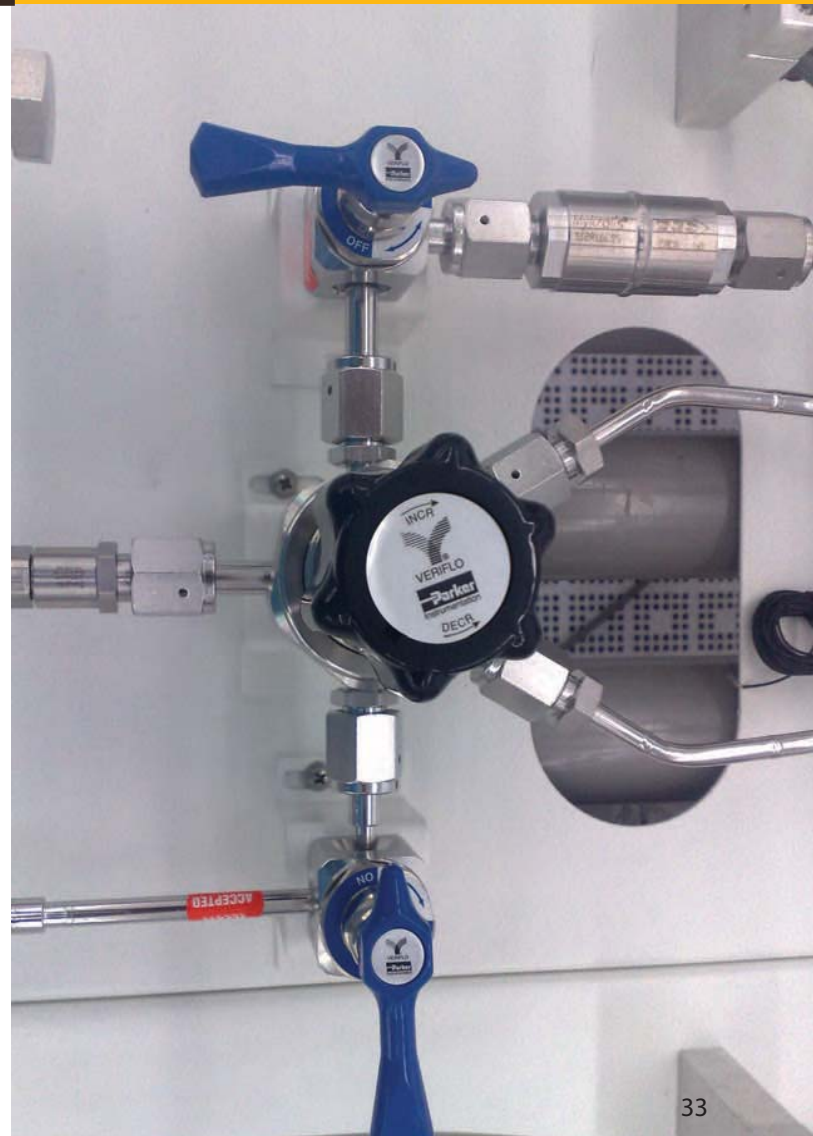
Custom Engineering

Capabilities Include:

- » Computational Fluid Dynamics (CFD)
- » Finite Element Analysis (FEA)
- » Diverse Fluid Laboratory Testing
- » Rapid Prototyping
- » 3-D Modeling

Parker Hannifin's long tradition of providing fluid control solutions to the world has resulted in our focus on advanced methods of design and manufacture. We encourage our design engineers to work closely with your design and manufacturing staffs. This working relationship contributes to rapid design of components that meet or exceed your expectations. From 3D models, finite element analysis (FEA), to computational fluid dynamic studies (CFD), we have the tools to help you improve your fluid handling designs.

To find out more about our custom engineering solutions, please call us at (520) 574-2600.



电源：燃气轮机

使清洁燃烧发动机更好地燃烧。

看看派克的：

- 1 过滤、润滑和状态监测
- 2 排放量减少
- 3 耐高温金属密封件
- 4 燃油控制和传送系统
- 5 入口雾化系统
- 6 湿压缩系统
- 7 持续排放监测系统 (CEMS)
- 8 伸缩节

过滤、润滑和状态监测
完整的过滤、润滑和状态监测系统，可以防止损坏轴承，再次检查过滤器操作，并且监控变速箱的微粒和水分。

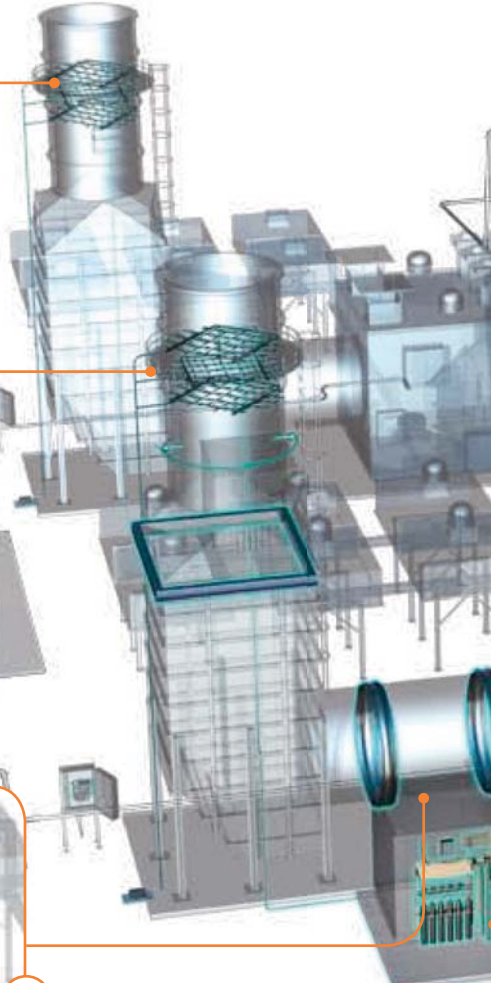
图为：SMR系统（亚微米颗粒去除系统）（右图）便携式在线颗粒计数器（图下）。

1



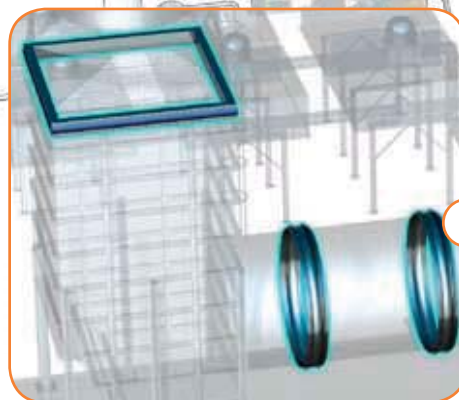
2

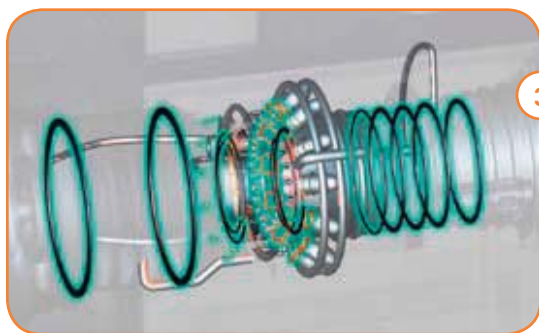
排放量减少
派克喷嘴技术有助于减少涡轮机排放氮氧化物和二氧化碳。



8

伸缩节
可长期持久地应用于高达 1,800°F (982°C) 的燃气轮机进气、排气和HRSG系统。





3

高温金属密封件
提高涡轮效率。

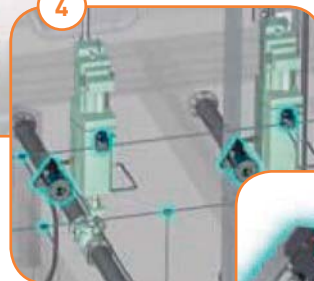


4

燃油控制和传送系统

燃油和燃气控制系统可以推动行业-低氮氧化物排放，同时提高燃气轮机的效率。可以提供喷嘴清洁、检查和测试(CCT)服务。

图为：燃油喷嘴(左)，燃料控制系统(中)，水喷射系统(右)。



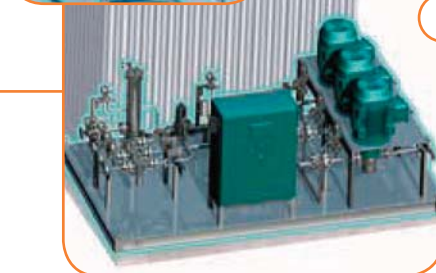
5

入口雾化系统

利用Macro Spray®单点喷嘴专利技术,从而实现行业最高MW动力提升。

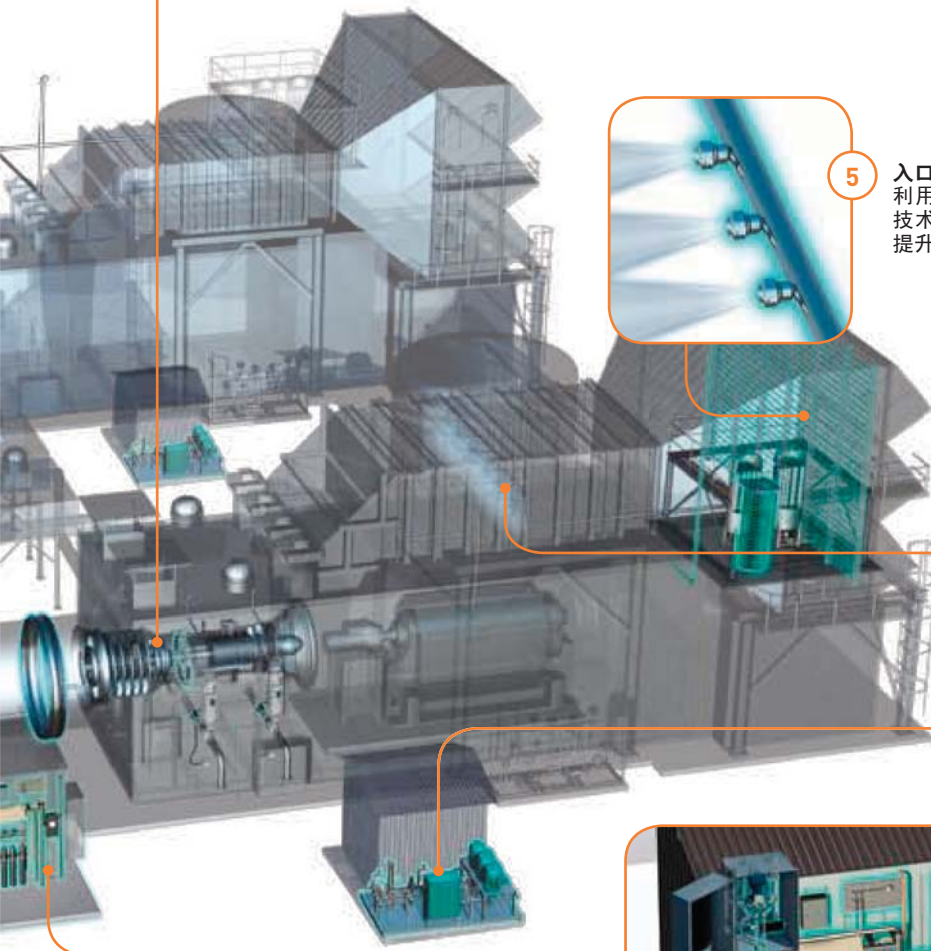


6



湿压缩系统

采用高压不锈钢过滤器、阀门、法兰码、管件、Macro Spray蜘蛛喷嘴专利技术，均匀地将精细雾化软化水喷入压缩机入口，从而在一个极为可靠和具有经济效益的蒸发冷却系统中，减少压缩机的工作量，产生涡轮机的功率增益，提高热效率，并减少氮氧化物水平。



7

持续排放监测系统(CEMS)

我们的控制面板以及气体调节和输送系统(不锈钢瓣子、压力调节器、过滤器和歧管系统)有助于准确测定气体排放水平，以确定发动机是否在合格参数内运行。



电源：联合循环

系统、子系统和组件,提高所有操作模块中设备的效率

请看派克的:

- 1 蒸汽放空装置
- 2 氮气发生器
- 3 伸缩节
- 4 换向减振器控制
- 5 燃料和空气控制
- 6 液压动力单元
- 7 液压缸
- 8 液压升降油泵
- 9 液体燃料过滤

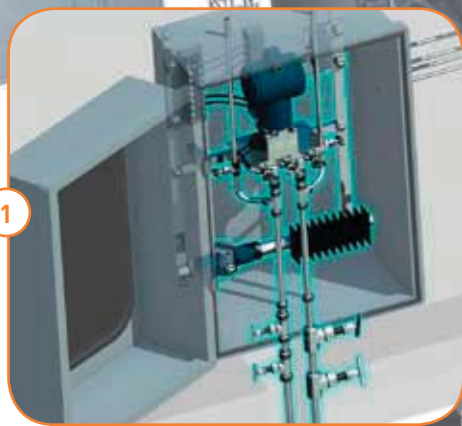
氮气发生器

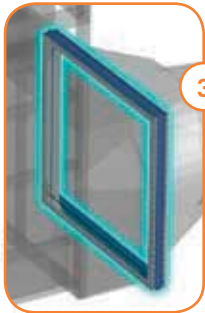
适用于HRSG和锅炉管接头的氮气发生器限制储存期间的腐蚀,从而延长了设备和部件的寿命。



蒸汽放空装置

高温蒸汽放空和控制阀具有业界领先的安全性和可靠性。阀门和歧管均具有B31.1认证。





3

伸缩节

我们的伸缩节可用于燃气轮机进气、排气和HRSG系统，可以在1,800°F(982°C)的高温条件下提供更持久的性能。



4

换向减振器控制

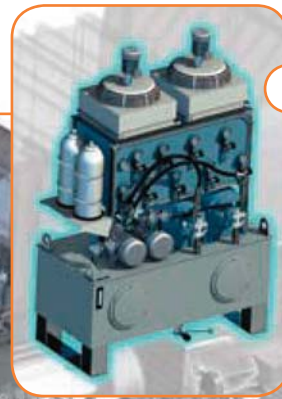
专业燃气轮机液压元件和系统提供高速、高精度换向减振器控制、燃料控制和涡轮机控制。

燃料和空气控制

CB止回阀防止液体燃料线结焦。制动器瓣状Stratoflex软管提供可靠的燃料和空气输送。



5



6

液动力单元

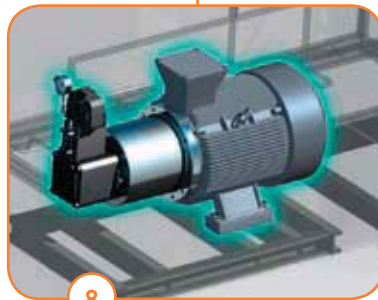
派克动力装置为涡轮燃料控制阀、进口导叶驱动，乃至蒸汽轮机EHC系统提供可靠、高速、精确的控制。



7

液缸

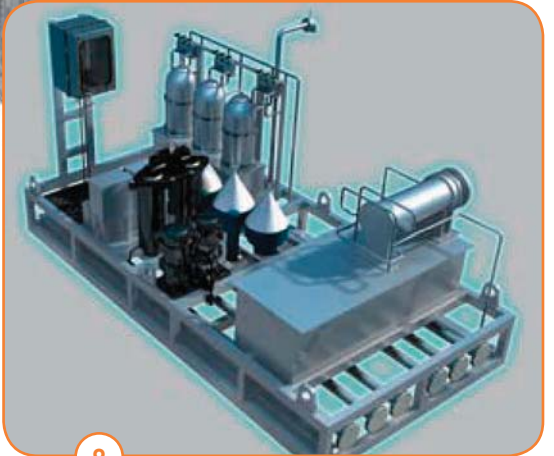
我们的液缸完全按照不同换向器大小定制而成，针对特定应用提供优化设计。



8

液压升降油泵

业界领先的升降油泵可提供可靠的润滑能力，最大限度的延长了滑动轴承的使用寿命。



9

液体燃料过滤

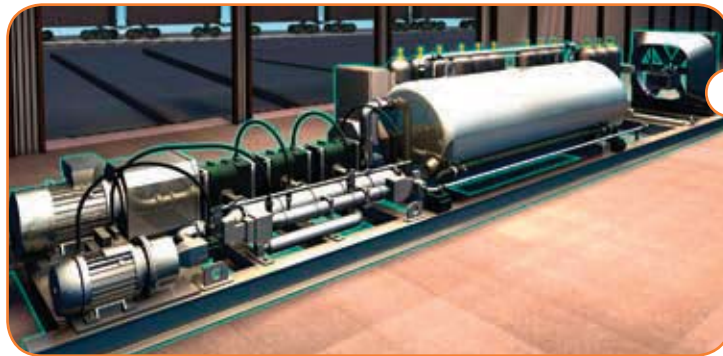
我们的过滤元件净化液体燃料，去除微粒杂质和水，从而提高其可靠性。

电源：化石燃料

一个供应商，多种选择。

请看派克的：

- ① 油液监测及控制系统
- ② 煤炭卸载液压系统
- ③ 耐磨CERGOM 10软管
- ④ 蒸汽控制和仪器机柜
- ⑤ 高压泵系统
- ⑥ 连续排放监测系统(CEMS)
- ⑦ 伸缩节



② 煤炭卸载液压系统
新煤炭卸载液压系统可提高生产效率，加快吞吐量。



①

油液监测及调节系统
蒸汽涡轮机润滑和液压系统的油监控和调节系统可以保护工厂设备，提高系统寿命。

图为：icount PD(上)；双工滤波器(中)；PVS装置(右)。

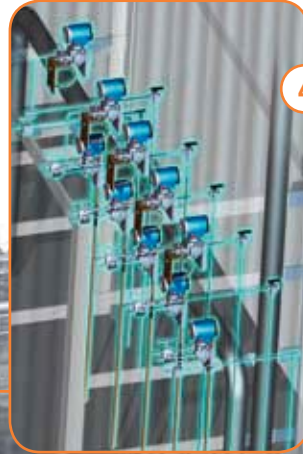




3

耐磨CERGOM 10软管

我们软管的寿命是钢管的34倍，是真空输送煤炭粉末和浆液系统的理想选择。派克将新的软管材料与陶瓷板材相结合，并且在陶瓷板材中嵌入了添加有人工合成纺织品的复合橡胶。



4

蒸汽控制和仪器机柜

当用于蒸汽控制和仪表机柜时，派克MPITM配件、阀门和歧管达到B31.1认证对较高温度和超临界锅炉水控制压力的要求。



5

高压泵系统

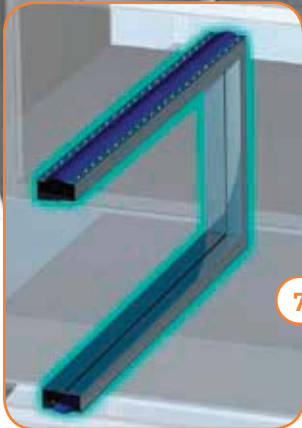
我们的高效抽水系统可为烟气脱硫系统提供准确的流量和高压水。



6

连续排放监测系统(CEMS)

我们的控制面板、雾化系统和气体调节和输送系统(样品运输线、不锈钢尾纤、高纯度的压力调节器、FRLs、PFA/PTFE管件和阀门，以及电磁阀)可准确测定气体排放量，以确定该厂是否在规定的控制参数内操作。



7

伸缩节

大型烟道非金属伸缩节具有可靠的、从400°F(204°C)至2000°F(1093°C)的耐高温性能。

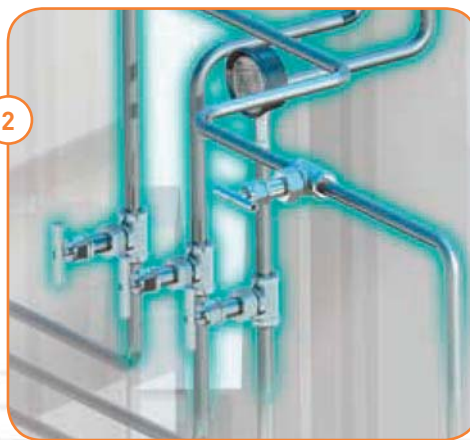
电源：核电

承诺将数百万美元投入核电创新。

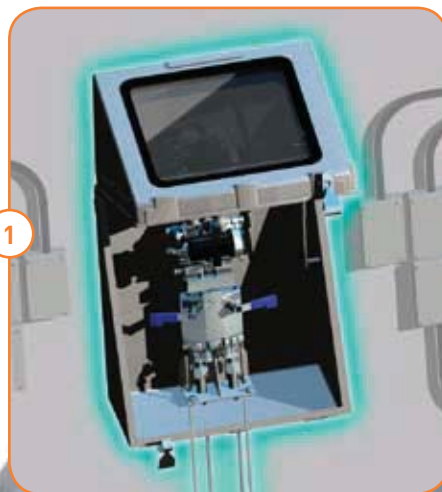
请看派克的：

- 1 CCIMS
- 2 特种阀门系统
- 3 气弹簧制动器
- 4 弹簧增压C型金属密封件
- 5 自动化多转换过滤系统

特种阀门系统
特种阀门系统符合监管要求，如10CFR50附录B和ASME第三节（与安全有关的并且带有N字印章的阀门），改造传统设备（液压伺服阀），并且成为非关键系统（电磁阀）的替代品。



CCIMS
我们的一体式差压引管系统(CCIMS)可提供精确、高质量的流量测量，并且快换接头连接可选，有利于减少在辐射中的暴露时间。另外远程控制 and 紧凑型安装模式可选。





3

气弹簧制动器

安全关键型应用，在压水反应堆中用于主蒸汽隔离、进水旁路和紧急凿孔阀门。

弹簧增能C性金属密封件

派克金属密封件利用护套力量、弹簧力量、静液压力来增强压力，进而为密涡轮外壳提供密封，可承受高达95,000psi(6,550bar)的压力，具有优良的耐腐蚀性和抗疲劳性。



4



5

自动化多转换过滤系统

自动净化系统，通常被称为CRUD，用于去除并处理堆积于管道内、燃料库、燃料输送通道、反应堆冷却剂/进水及工厂其他地区的高放射性沉淀物。



Material Handling Equipment:

ASME/PED/DNV/ABS
multi-certified vessels

ATEX-approved solenoid valves

Cam-Lok discharge hoses

Compact Spiral™ hydraulic hose

Custom HPU's

EO/EO-2 metric bite type
stainless steel adapters

Explosion-proof servo valves

Filters and elements

Floating and sub-marine hose

Fluid filtration cartridges
and ASME-certified vessels

Gas bottles

Gold Cup series pumps
and motors

Large-bore tank hoses

Lokomec valves

On-engine air filtration

On-engine crankcase
ventilation filtration

On-engine/frame rail
fuel filtration

On-engine oil filtration

Parflange® F37 non-welded
piping systems

Parker Tracking System (PTS)

Plastic air cleaners

Pure-water filtration systems

Quick disconnects

Reverse osmosis saltwater
desalination systems

Seal-Lok™ O-ring face
seal adapters

Seal sub, box and pin protectors

Stainless steel adapters
and fittings

Tank hoses

Tie-rod and custom cylinders
with ABS, DNV, and other
certifications available

Triple-Lok® 2 soft seal JIC
stainless steel connections

Washdown hoses

WorldPressure filters



Well Control & Stimulation:

- | | |
|--|--|
| Acidizing hoses | Hydraulic oil purification system with explosion-proof electronics (PVS) |
| Adapter spools | icount Particle Detector for hydraulic oil |
| Closed crankcase ventilation systems – diesel or natural gas | Metal seals and gaskets |
| Fluid filtration cartridges and ASME-certified vessels | Needle valves |
| Fuel additives | Positioning and surveying services |
| Fuel polishing cart | Shear seal valves (Lo Torq) |
| Fuel recycling units | Stainless steel control valves |
| Gask-O-Seals® | Stainless steel filters |
| High-pressure fittings (Autoclave style) | Surface BOP control hose |
| High-temperature, high-pressure packer elements | Valves and ball valves |
| Homogeneous packer elements | Welded cylinders |
| | Wireline hoses (long lengths) |

Floating Production Storage Offloading (FPSO) Vessel:

Hundreds of Parker components and systems can be found on FPSOs:

- | | |
|----------------------------|-----------------------------------|
| Gas dehydration | Power generation |
| HP and HHP gas compression | Power generation (3 trains) |
| LLP gas compression | Production manifolds |
| LP and MP gas compression | Seawater deaeration |
| Main E&I building | Seawater filtration and utilities |
| Oil dehydration | Seawater water injection |
| Oil offloading | |



Drilling Systems:

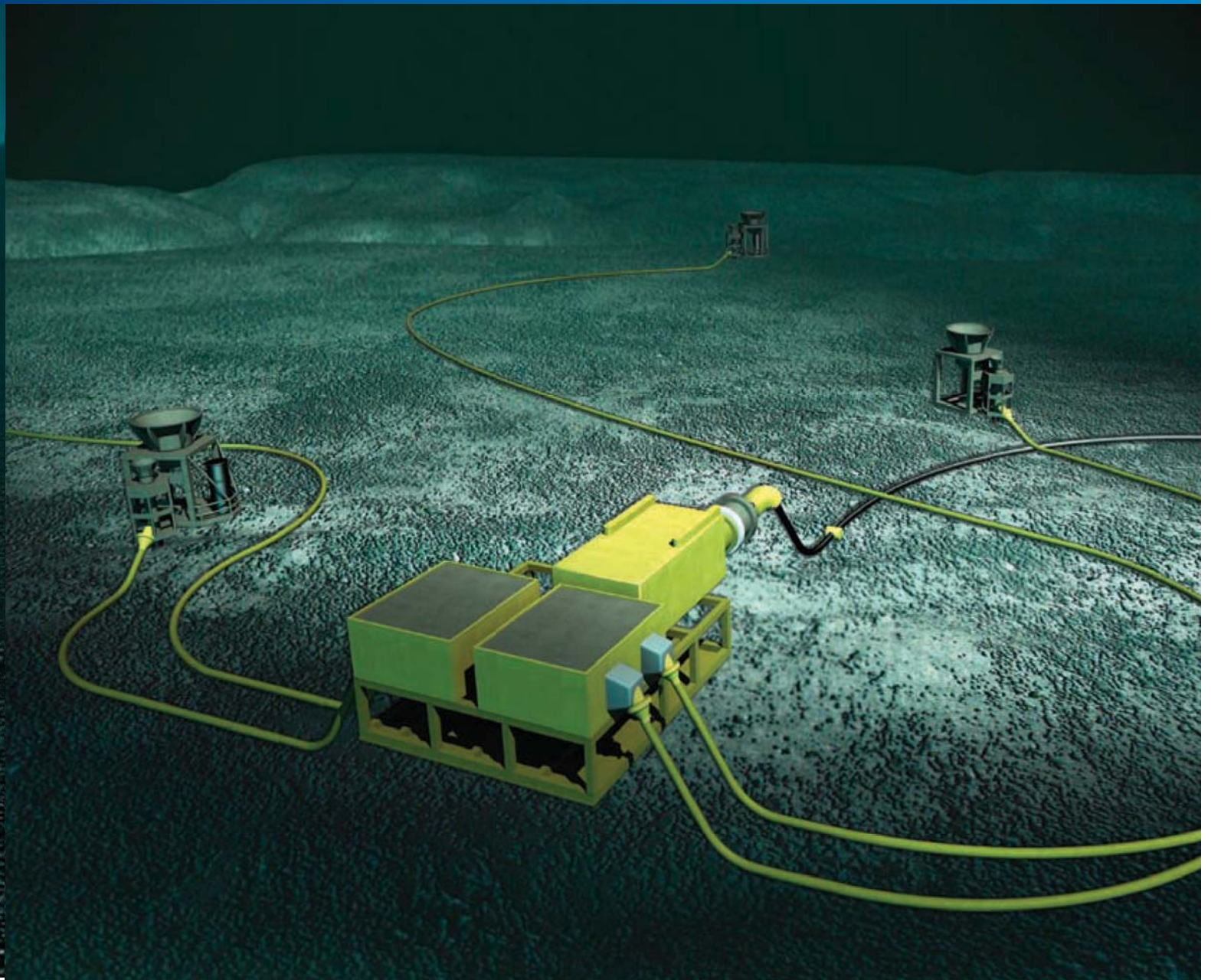
Accumulators – piston, bladder, composite, and stainless steel capacities larger than 303 liters (80 gallons) and greater than 1,379 bar (20,000 psi)
 A-LOK® titanium fittings
 A-TEX rated explosion-proof directional valves
 Backup rings
 Cable and flowline protectors
 Connector plates
 Custom molded or machined shapes
 Diverter flowline seals
 Engineered laminated elastomeric flexible bearings
 Extruded and precision machined packer elements

Flexible joint and components
 Fluid filtration cartridges and ASME-certified vessels
 Full flange fittings
 Gimbal bearing assemblies
 High-temperature, high-pressure O-rings
 Hotlines
 Integral Seals™
 Mud motor seal boots
 Multi-couplers
 Oilfield rubber products
 O-rings
 Phastite® fittings
 PolyPak® seals

PTFE FlexiLip and FlexiCase rotary seals
 PTFE FlexiSeals
 Radial-seal flange adapters (seal-subs)
 Riser adapters
 Riser clamps
 Riser control line protectors and shims
 Riser flange protectors
 Riser flexible joint
 Rod and piston seals
 Seal sub, box and pin protectors
 Sub-sea hydraulic cylinders
 Telescoping joint packers
 Tri-plex pumps
 Wellhead connector seals

Blow Out Preventer (BOP):

Bundles
 Collapse-resistant hoses (HCR)
 Control hoses
 Fittings and small valves
 High-pressure test hoses
 Orifice fittings
 Seals and components
 Splice and repair kits and service
 Thermoplastic hoses



Sub-sea Production & Transportation:

3-D structural scanning	Dynamic metal seals and sealing systems	Seal boots
BlomPMS (vessel positioning monitoring system)	High-temperature, high-pressure sealing systems	SICAMS (sub-sea metrology)
Chemical injection hoses (ChemJec)	Hydraulic and electrical flying leads	Six-strand steel temporary mooring
Christmas tree flex joints	IWOC – bundles	Stab plates (multi-couplers)
Christmas tree gimbal mount	Metallic and non-metallic high-pressure and collapse-resistant hoses	Stainless steel high-pressure filtration (689 – 1,379 bar/10,000 – 20,000 psi)
Code 62 double-seal deep-sea adapters	MICAMS (multi-camera sub-sea metrology)	Steel tube and thermoplastic umbilicals
Collec connector seals	Polyester and spiral strand steel long-term mooring	Ultra-high-temperature metallic seals
Control umbilicals	Quick couplings	
Custom sub-sea hydraulic cylinders		



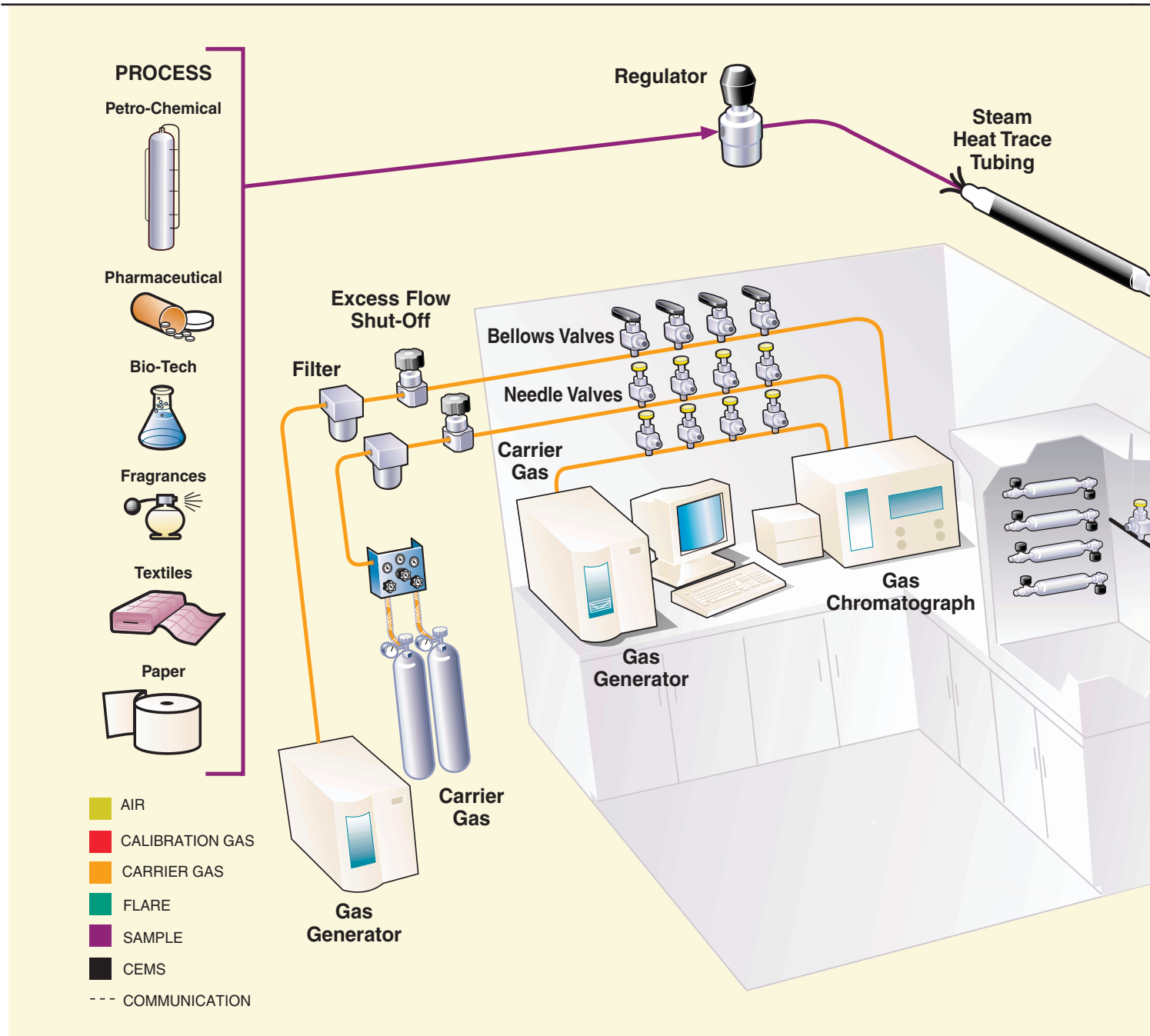
Gas and Liquid Sample Filters
Balston® sample and membrane filters are designed specifically to protect process analyzers and monitoring equipment from sample impurities.



Regulators
The AVR, IR4000, 5000 and 6000 regulator families are engineered specifically for process analytic systems. Key standard features are reduced internal volume, no internal threads and a Hastelloy C-22® diaphragm.



Heat Trace/Tube Bundling
Our pre-insulated, steam or electric traced tubing bundles transport the sample from extraction to the sample conditioning system. A full range of controllers and installation accessories are also available.



- AIR
- CALIBRATION GAS
- CARRIER GAS
- FLARE
- SAMPLE
- CEMS
- COMMUNICATION



Excess Flow Valve
Compressed carrier gases such as hydrogen can pose a serious safety hazard if a system component fails. Our Excess Flow Valve has an automatic diaphragm shutoff when flowrates exceed a specified setting.



Gas and Zero Air Generators
Balston® gas and zero air generators increase accuracy of analysis, and reduce service and maintenance costs. Eliminating compressed gas cylinders reduces lab floor space and labor requirements.



High Integrity Fittings and Valves
Light molecular gasses used as carrier gas are expensive. High integrity gas system components with face seal fittings and packless diaphragm or bellows sealed valves provide the lowest leak rates available.



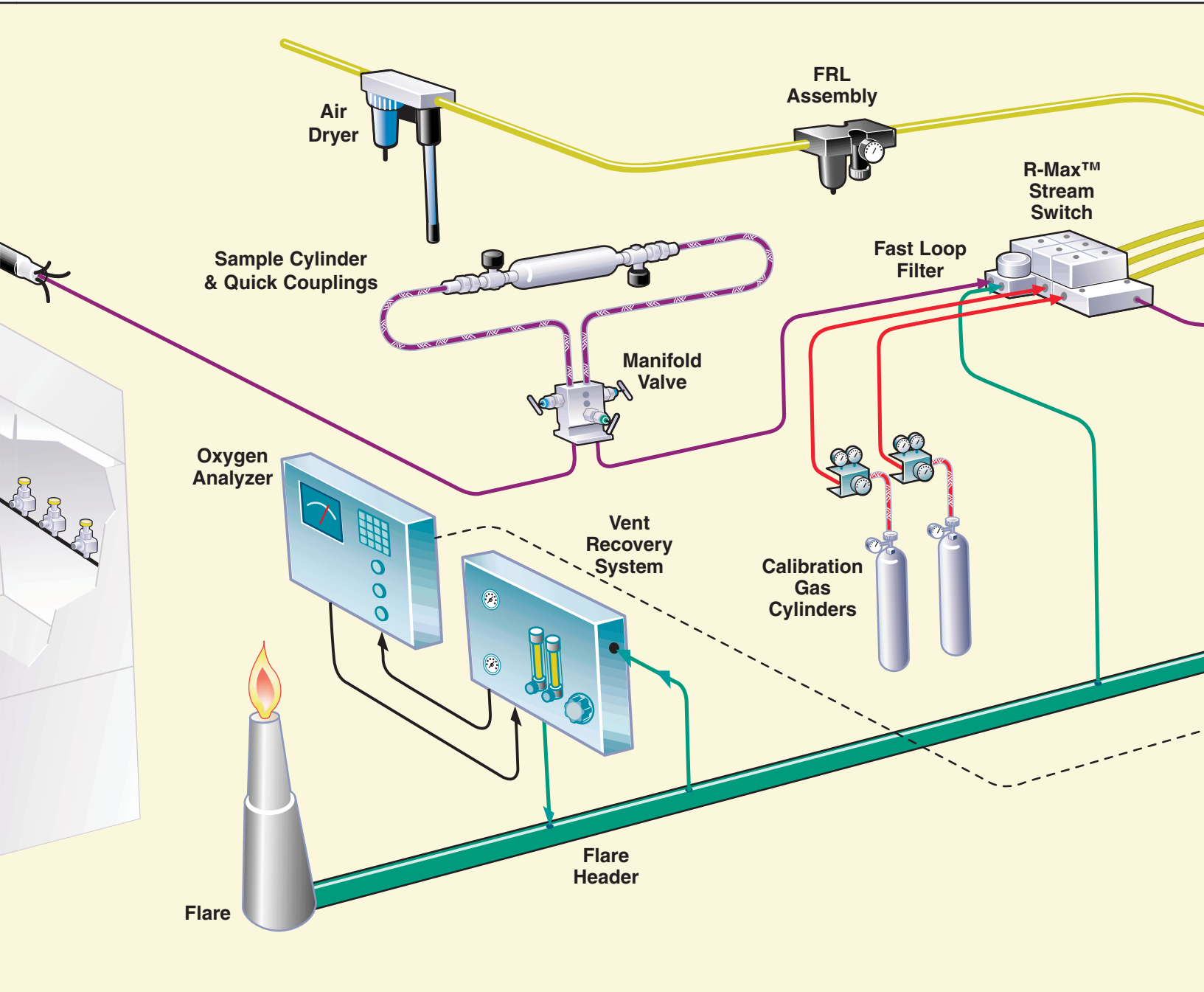
Instrumentation Fittings
Single and double ferrule compression fittings are available in stainless steel and a broad range of other alloys. Our Supercase™ ferrules are hardened to grip the tubing with excellent resistance to corrosion.



ASIC Performer Transducers and Transmitters
Using the latest in thin film sensor technology, the Performer uses simple to install micro-electrical connection and offers high stability with very low drift throughout six pressure ranges.



Filters, Regulators, Lubricators
Filters, Regulators, and Lubricators prepare compressed air for pilot valves and other pneumatic devices. Parker air preparation devices are available in a broad range of pressure ranges and materials.



O-Rings
Parker's engineered seals play an important role in the safe and reliable operation of equipment in all industries around the globe. Perfluorinated elastomers provide the broadest range of chemical resistance with temperature ratings up to 600° F (315° C). Ask about our Material Selector CD.



Analyzer Pressure Regulation and Vent Recovery System
This system is engineered to meet the needs of continuous gas analyzers. The combination of pressure and flow control provides analyzer cell stability of less than 0.1psi (.007 bar) regardless of up or downstream effects.



Quick Couplers
Our non-spill FS series and general-purpose instrumentation quick couplings are available with a variety of elastomer seals for proper fluid compatibility.



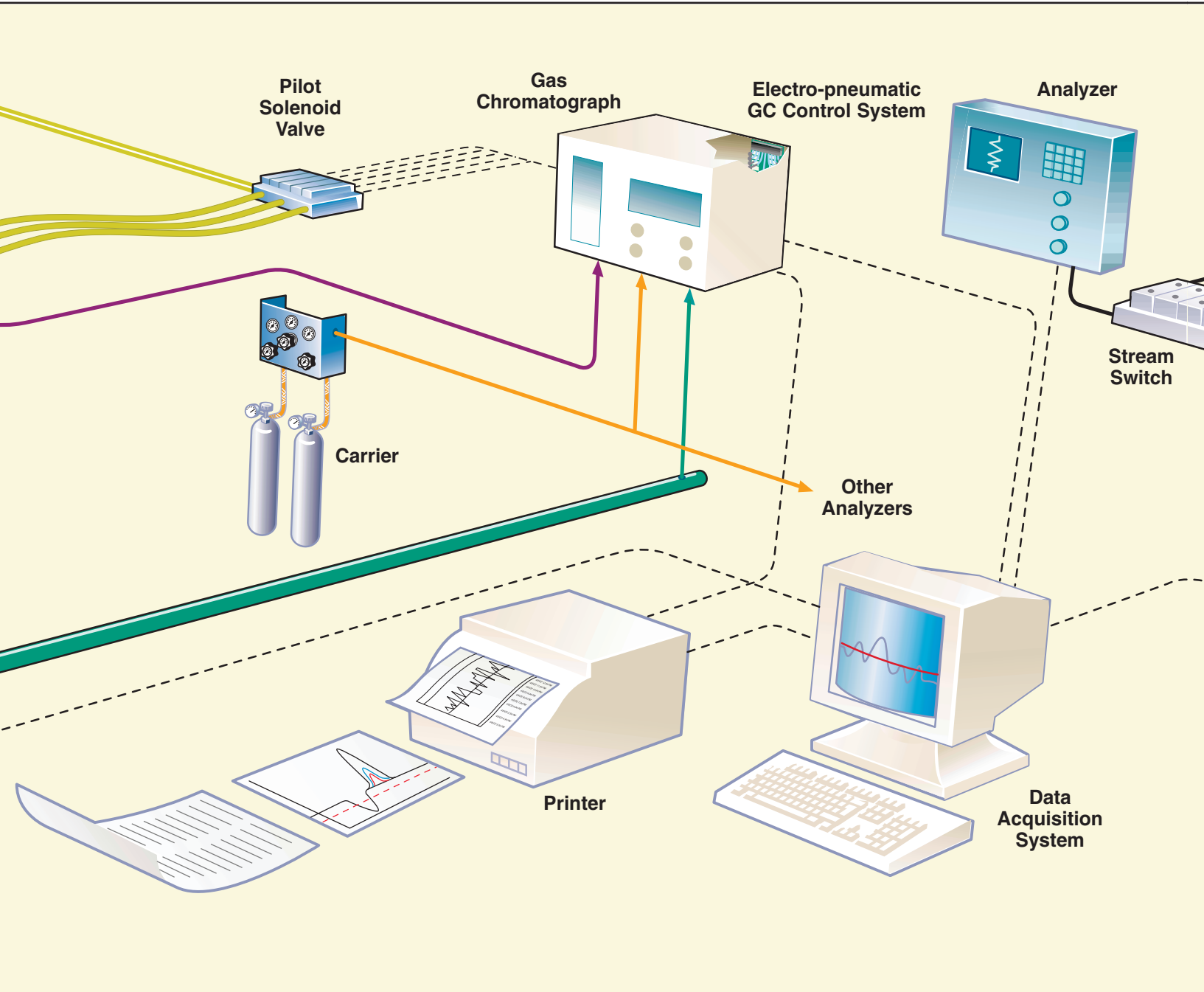
Parker R-Max™ Stream Switching System
The Parker R-Max™ integrates both switching and filtering into a compact modular assembly. The system can control both gas and liquid streams and has been engineered with many user-friendly features.



Pilot Solenoid Valves
Compact, serial addressable, manifold mounted 2-, 3- and 4-way solenoid controlled air valves to drive actuators, stream switching valves, and process valves.



Solenoid Valves
Skinner, Lucifer and Gold Ring™ solenoid valves control fluids and gasses in air dryers, power plants and other industrial and petrochemical applications.



Instrumentation Valves
Manual, pneumatic & electrically actuated ball valves are available with many port configurations and packings. Full range of needle, metering and check valves, as well as manifolds and sample cylinders for grab sample stations are available.



Cylinder Gas Products
A full range of stainless steel CGA, DIN, JIS and British Standard cylinder connections, cross and tee purges, manifolds and pigtails are available for compressed gas cylinder hookup. From cylinder source to point of use, Parker offers one-stop shopping.



Flexible Metal Hose
Metal hose assemblies with welded CGA fittings provide a flexible connection between a compressed gas cylinder and process line. Ideal for light molecular gasses commonly used for carrier gasses.



Miniature Solenoid Valves

Miniature solenoid valves for CEMS stream switching and flow control. Body materials are available in 316 stainless steel, PTFE and PEEK with orifice ranges from .031"-.093" for liquid or gas service. 12 or 24 VDC continuous duty solenoid operators.



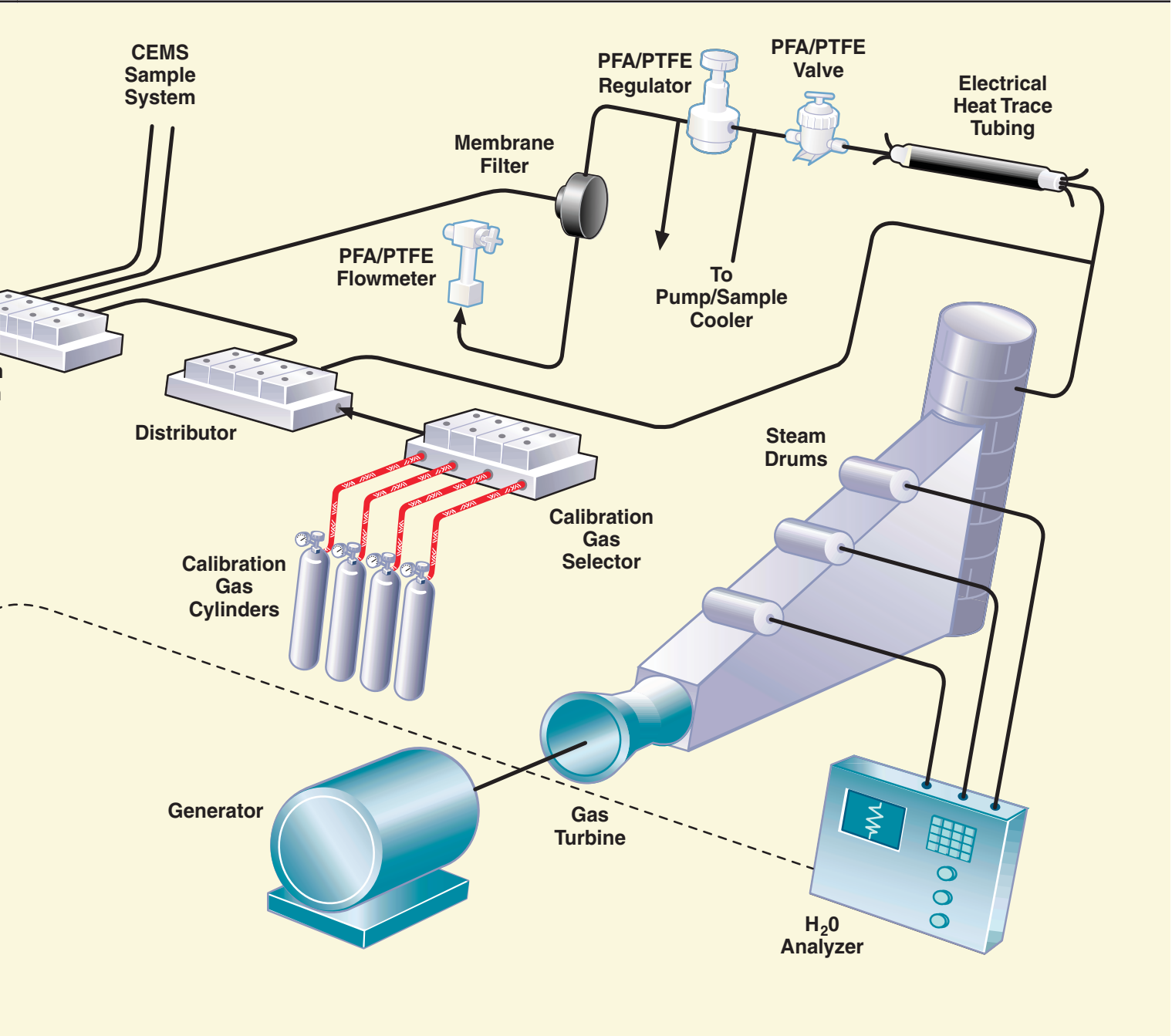
Accumulators

Accumulators are suitable for storing energy under pressure making them ideal for probe blowback applications on continuous emission monitoring systems.



Membrane Filter

Balston® membrane filters combine absolute membrane filtration down to 0.01 µm, with an integral pre-filter to protect the membrane. Ideal for use on gas chromatographs, mass spectrometers, oxygen and moisture analyzers.



Cylinder ChangeOver System

The Cylinder ChangeOver system is a compact module designed for continuous gas flow. A unique 2-in-1 regulator with a common control knob automatically directs the flow of gas from two separate sources.



PFA/PTFE Fittings and Flow Control

Full range gripper, flare and welded fittings as well as stream switching, ball, needle, check, solenoid, metering and diaphragm valves. We also manufacture pneumatic bellows pumps, gauge protectors, regulators, flow meters and aspirators for your CEMS or chlorinated sample line applications.



PFA/PTFE Tubing

Extruded PFA, PTFE, ETFE, FEP, MFA tube lengths and coils are available for single line sample transport or inclusion in heat traced bundles.

The Problem

For the customers & markets that we serve, Corrosion represents the difference between trouble-free operation and costly downtime.

What is Corrosion?

According to NACE, Corrosion is the deterioration of a substance, usually a metal, or its properties because of a reaction with its environment.

The Problem of Corrosion

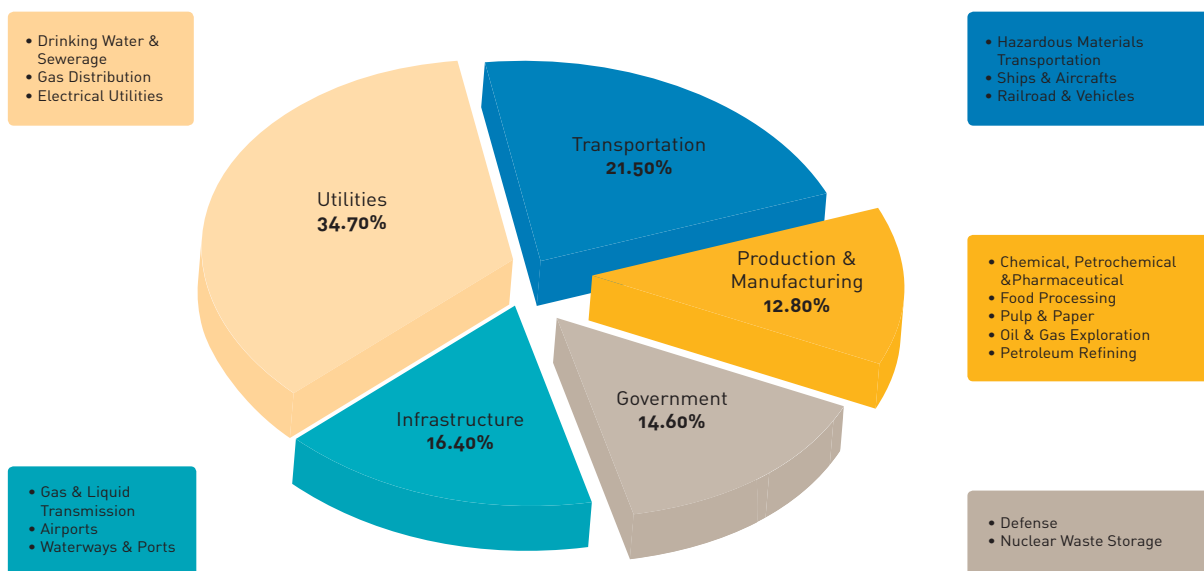
Direct and indirect economic losses derived from corrosion include the following:

- Replacement of damaged equipment
- Overdesign to allow for corrosion
- Preventive maintenance
- Shutdown due to corrosion failure
- Loss or contamination of the product being produced (i.e. food industry)
- Efficiency decrease. For example, corrosion products lower the heat transfer rate in heat exchangers
- Failure of adjacent equipment
- Health and safety. Loss of natural resources, pollution or even human lives.



Cost of Corrosion

According to a nationwide report conducted in the USA, the cost of corrosion accounted for a total of \$276 billion per year. The specific industrial sectors and associated cost were broken down as follows:



The Problem

Using the right materials and processes can help to beat corrosion problems throughout industry.

Uniform Corrosion

Uniform or general corrosion is the most classical form of corrosion, but is not always the most important in terms of cost or safety.

The consequences of uniform corrosion are a decrease in metal thickness per unit time or a more

or less uniform deposit of these corrosion products in the surface of the metal.

Uniform corrosion can be limited or prevented by an appropriate choice of material or modification of the medium among other solutions.



Galvanic Corrosion

Galvanic corrosion can be defined simply as being the effect resulting from the contact between two different materials in a conducting corrosive environment.

In many cases, galvanic corrosion may result in quick deterioration

of the least corrosion resistant material, and can lead to fatal failure.

Common methods of minimising and preventing galvanic corrosion are choosing material combinations in which the constituents are all made

from the same material or different materials as close as possible in the corresponding galvanic series, avoiding an unfavourable surface area ratio, using protective coatings, or controlling the aggressiveness of the environment.

↑ **LESSON:** Do not mix tube and fitting or valve alloys wherever possible.



Galvanic reaction created by mixing different body & nut materials.

The Problem

Crevice Corrosion

Crevice corrosion is an electrochemical oxidation-reduction process, which occurs within localized volumes of stagnant solution trapped in pockets, corners or beneath a shield (seal, deposit of sand, gasket or fastener, for instance).

Crevice corrosion is highly accelerated if chlorine, sulphide or bromide ions are present in the electrolyte solution. Once

a crevice is initiated, even the most benign atmospheric environments can become extremely aggressive. Crevice corrosion is considered much more dangerous than uniform corrosion as the corrosion rate can be up to 100 times higher.

Crevice corrosion is encountered particularly in alloys which owe their resistance to the stability of a

passive film. A classic example is stainless steel in the presence of moderate to high concentrations of chlorine ions.

Crevice corrosion can be limited or prevented by using welds rather than bolted or riveted joints, designing installations with a proper draining system and avoiding stagnant areas, using solid and high quality seals or controlling the severity of the electrolyte.



Crevice corrosion between the tube/tube trap interface.



Pitting Corrosion

Pitting is characterised by the localised attack in the form of deep and narrow holes that can penetrate inwards extremely rapidly, while the rest of the surface remains intact. A component can be perforated in a few days with no appreciable loss in weight on the structure as a whole.

Pitting corrosion is most aggressive in solutions containing chloride, bromide or hypochlorite ions. The presence of sulphides and H₂S is also detrimental to this type of attack. The stainless steels are particularly sensitive to pitting corrosion in seawater environments.

Pitting corrosion can be reduced or prevented by choosing the most appropriate material for the service conditions, avoiding stagnant zones and deposits, reducing the aggressiveness of the medium or using cathodic protection.



↑ **LESSON:** Every batch of Parker 6Mo steel is tested for Pitting Corrosion as per the ASTM G48 standard.

Intergranular Corrosion

Intergranular corrosion is a form of attack that progresses preferentially along the grain boundaries paths and can cause the catastrophic failure of the equipment, especially in the presence of tensile stress. Under certain conditions, the grain boundaries can undergo marked localized attack while the rest of the material remains unaffected. The alloy disintegrates and loses its mechanical properties. This

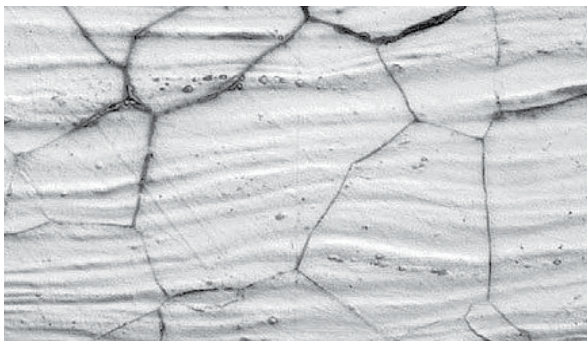
type of corrosion is due either to the presence of impurities in the boundaries, or to local enrichment or depletion of one or more alloying elements.

Many alloys can suffer from intergranular attack, but the most common example is the intergranular corrosion of austenitic stainless steels, related to chromium carbide depletion in the vicinity of the boundaries,

during a “sensitising” heat treatment or thermal cycle.

Intergranular corrosion can be prevented by selecting the right material, avoiding low cost equipment where the material is likely to have impurities and poor heat treatment, using low carbon or stabilised grades if welding or applying post-weld heat treatments correctly.

↑ **LESSON:** Our stainless steel is capable of passing the intergranular corrosion test as per the ASTM A262 Practice.



Intergranular Corrosion – HAZ Area – Stainless Steel Weld in Seawater Environment



Stress Corrosion Cracking Stainless Steel in Seawater Environment

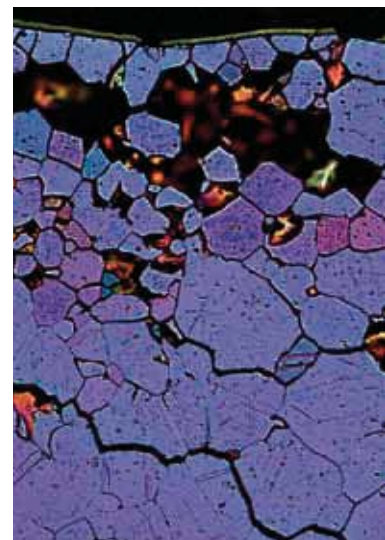
Stress Corrosion Cracking

Stress corrosion cracking (SCC) is a process involving the initiation of cracks and their propagation, possibly up to complete failure of a component, due to the combined action of tensile mechanical loading and a corrosive medium. The time necessary for a part to fail by SCC can vary from a few minutes to several years.

This kind of attack normally occurs in media that are little or non-aggressive towards the metal or alloy concerned in the absence of tensile loading.

This form of corrosion is of a paramount importance and represents a permanent risk in numerous industrial installations, in terms of both the safety and economic consequences involved. No commercial alloy is fully immune to SCC.

Stress corrosion can be avoided by selecting materials that are not susceptible in the specific corrosion environment and minimised by stress relieving or annealing after fabrication and welding, avoiding surface machining stresses and controlling the corrosive environment.



↑ **LESSON:** Do not take shortcuts. Select the best material for a safer & more cost effective application.

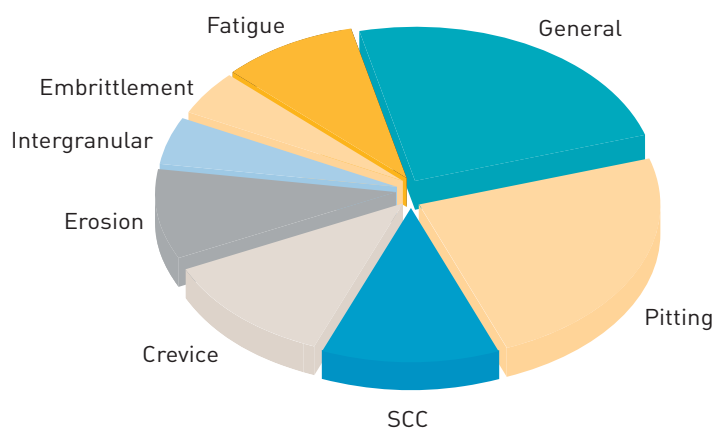
The Facts

Some of the most popular factors that can have a significant influence in terms of corrosion are listed below:

- **Materials Selection:**
 - Environment
 - Mechanical Properties
 - Availability of Design &
 - Test Data
 - Cost
 - Availability
 - Maintainability
 - Compatibility with other components
 - Reliability
 - Appearance
- **Process Parameters:**
 - Media Chemistry
 - Temperature
 - Velocity
 - Pressure
- **Construction Parameters:**
 - Drainage, Welding, etc.
- **Dissimilar Metals**
- **Crevices**
- **Corrosion Allowance**
- **Operating Lifetime**
- **Maintenance & Inspection Requirements**

Some Figures About Corrosion

The industrial importance of localized corrosion problems has been revealed in many reports. The following pie chart summarizes the findings of 363 corrosion failure cases investigated in a major chemical processing company. The importance of pitting comes second, just after general corrosion and before stress corrosion cracking which is often also initiated by pitting.



Sour Gas Service and NACE MR0175

Hydrogen sulphide (H₂S) is a colourless, flammable, and extremely hazardous gas. It occurs naturally in crude petroleum, natural gas, and hot springs. In addition, hydrogen sulphide is produced by bacterial breakdown of organic materials and human and animal wastes (for instance, sewage systems). Industrial activities that can produce the gas include petroleum/natural gas drilling and refining, wastewater treatment, coke ovens, tanneries, and paper mills. Hydrogen sulphide can also exist as a liquid compressed gas.

When dissolved in water, H₂S forms a weak acid which is extremely corrosive, especially in the case of steel where the corrosion products of iron,

sulphide and atomic hydrogen can penetrate the steel and embrittle it. Under the influence of applied stresses, cracking can develop in a very short time and result in failure of the equipment and potential human and environmental loss. This type of failure is known as sulphide stress corrosion cracking (SSCC) and there are many cases in history that account for this type of failure.

NACE MR 0175/ISO 15156 is a Materials Standard issued by the National Association of Corrosion Engineers. It aims to assess the suitability of materials for oilfield equipment where sulphide stress corrosion cracking may be a risk in hydrogen sulphide (sour) environments. This 3-part

document gives requirements and recommendations for the selection and qualification of carbon and low-alloy steels, corrosion-resistant alloys, and other alloys for service in equipment used in oil and natural gas production and natural gas treatment plants in H₂S-containing environments, whose failure could pose a risk to the health and safety of the public and personnel or to the environment. It can be applied to help to avoid costly corrosion damage to the equipment itself.

Parker Instrumentation can offer all the range of materials compliant to the metallurgical requirements of NACE MR0175 in selected ranges. For more information, please contact us.

The Solution

Corrosion control does not just happen. It must be planned. We can help you find the best solution for your application.



As the worldwide search for oil and gas, power generation or chemical production is turning to more challenging applications an increasing number of situations are being encountered where corrosive production environments and products are present. Many of these cases often involve significant amounts of hydrogen sulphide, carbon dioxide, brine or hazardous chemicals among others, where their high corrosivity along with the wrong decisions made during the design stage have often lead to fatal failure and invaluable

human, environmental and economic loss. In most cases, these situations could have been avoided by properly analysing the specific operating parameters and designing the most suitable equipment.

In addition, other factors such high pressures and temperatures or severe environments are on demand. Requirements for higher production rates or more complex processes along with climate change and new environmental regulations can complicate the material selection

process and ultimately the performance and integrity of the application. Under these circumstances materials can offer a valid and cost effective alternative to conventional methods of corrosion control.

The material selection process can sometimes become complex, usually involving multiple factors like high strength requirements, operating temperature, high corrosion resistance, availability and cost.

Our Materials Statement

Our primary philosophy is to build reliable, efficient, cost-effective equipment for the intended service. We always strive for the best quality in the designs we produce, the materials we select and manufacturing processes we apply. All our materials come from the most prestigious mills in Europe and North America, and are fully traceable to the source of origin and mercury and radioactive free. We want to add value to every component we create and make all the applications we serve **smarter, faster, cleaner and safer.**

Due to their versatility, reliability and excellent corrosion resistance, the set of alloys and equipment that we offer usually meet all the demands in markets, including the oil and gas, chemical and petrochemical processing, pollution control, marine engineering, power generation, or pulp and paper among others.

However, the unique requirements of some of the projects often demand special approaches. Parker Instrumentation understand those needs and has the technical

knowledge and experience to help our customers to find the better solutions for their applications and meet even the most challenging demands.



Together, we can create innovative solutions that ensure your success

Materials Range for Corrosion Control

Our experienced credentials in materials selection are the results of years of expertise in successful applications worldwide.

Materials Range

Parker offers the most extensive range of alloys in the market. The range varies from conventional steels to high nickel alloys and titanium for the most demanding applications. The table below depicts the standard range of materials per product family. Other alloys might be offered on request.

	A-LOK® Fittings	Phastite® Fittings	Valves	Manifolds	Flanged Products
Brass	Yes	No	Yes	No	No
Carbon Steel	No	No	Yes	No	Yes
Stainless Steel 316/316L	Yes	Yes	Yes	Yes	Yes
Duplex Steel	No	Yes	Yes	Yes	Yes
Superduplex Steel	No	Yes	No	Yes	Yes
Super austenitic 6Mo	Yes	Yes	Yes	Yes	Yes
Monel 400	Yes	Yes	Yes	Yes	Yes
Alloy 825	Yes	Yes	Yes	Yes	Yes
Alloy 625	Yes	Yes	Yes	Yes	Yes
Alloy C-276	Yes	Yes	Yes	Yes	Yes
Titanium	Yes	No	Yes	Yes	Yes

Parameters To Be Considered in the Materials Selection Process

The main parameters to be considered when selecting any equipment are:

- Operating conditions, including temperature, pressure and media contained
- Environment
- Legislation and Internal Regulations
- Cost
- Availability
- Lead time
- Expected life time of the equipment
- Safety

In terms of materials, the selection criteria normally translate into some of the following parameters:

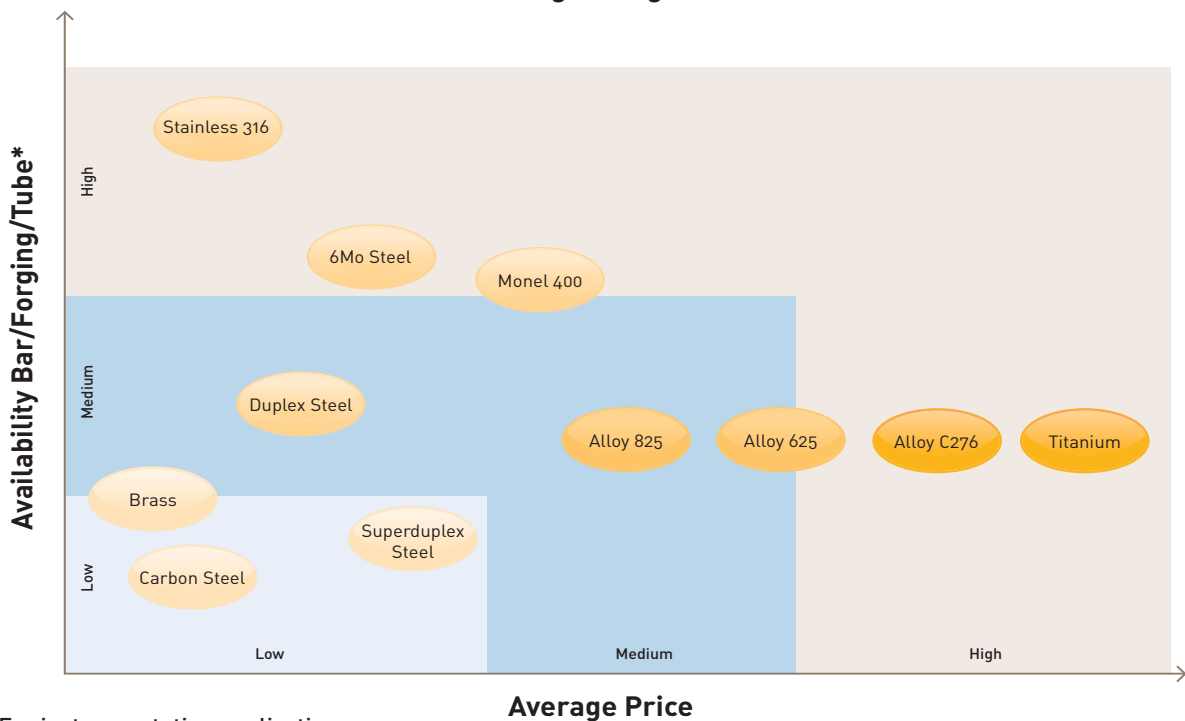
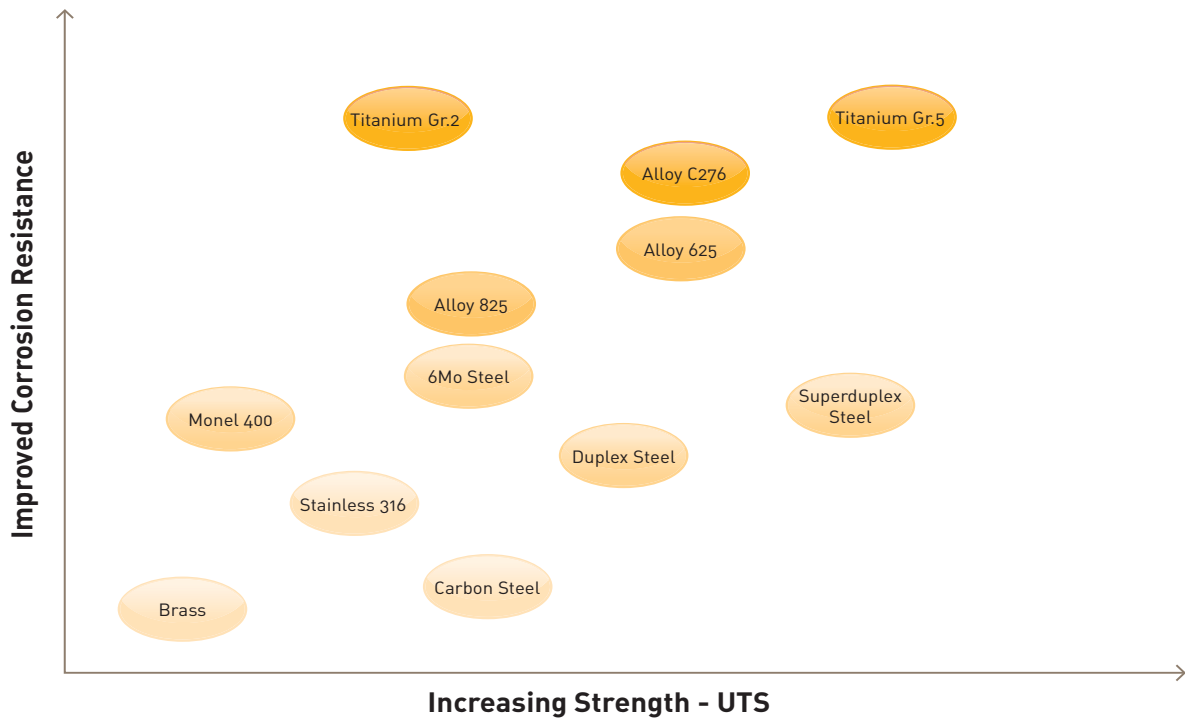
- Mechanical properties
- Corrosion resistance to media and environment
- Temperature operating range
- Cost
- Availability on request

Although the mechanism of corrosion is highly complex the actual control of the majority of corrosion reactions can be effected by the application of relatively simple concepts. Indeed, the Committee on Corrosion and Protection concluded that 'better dissemination of existing knowledge' was the most important single factor that would be fundamental in decreasing the enormous cost of corrosion in the UK.*

* Report of the Committee on Corrosion and Protection, Department of Trade and Industry, H.M.S.O. (1971)

Materials Quick Selection Guide for General Industrial Applications

The following table classifies our materials range in terms of mechanical strength and general corrosion resistance, and aims to be a generic tool and guidance at an early stage of the design. The values given to the specific parameters are not absolute and should be used as a reference only. Each application needs to be evaluated carefully and individually as the rules below might not apply at all times.



* For instrumentation applications

Cost Considerations

Think of the equipment replacement cost, depreciation, re-qualification of the new systems, downtime or low production rates, fines or human and environmental loss. Avoid low cost equipment. Investing in a more expensive material today could be a cheaper and trouble-free solution in the medium and long term.

Parker Hannifin carried out Stress Corrosion Cracking Testing as per ASTM G48 conducted by an independent party and its aim was to determine the time to failure of the 6Mo super austenitic steel (UNS S31254) and the conventional 316/L stainless steel (UNS S31600/03) in exactly the same conditions. Results showed that the 6Mo grade took over 3

times more to fail than the 316 grade.

In service applications, those results translate into a life expectancy of 6Mo three times longer than that of 316 in the same given conditions, **reducing leakage and downtime and increasing safety by over 60%.**

Example of a typical installation and associated life cycle cost:

		Materials Selection A: Stainless Steel 316	Materials Selection B: Superaustenitic 6Mo
After 10 Years	8,000 meters of 1/2" x 0.065" tubing	\$7/m	\$23/m
	1,500 Fittings 1/2" x straight shapes	\$15/unit	\$40/unit
	Design Parameter	5 Years Life	15 Years Life
Initial Installation	Tubing & Fitting Replacement**	Tube: \$7/m Fitting: \$15/unit	\$0
	MHR Labour Cost	40 MHR per 300 meters	\$0
		\$80 labour/hour	\$0
After 5 Years	Tubing & Fitting Replacement**	Tube: \$7/ft Fitting: \$15/unit	\$0
	MHR Labour Cost	40 MHR per 300 meters	\$0
		\$80 labour/hour	\$0
TOTAL		\$406,380	\$244,000

** Figures exclude material cost increase

40% cheaper

Some of Our Experience

Here are some basic guidelines based on our extensive knowledge and experience in applications worldwide:

- Think about cost effectiveness, safety and reliability
- A cheap option today usually translates into high cost of ownership tomorrow
- Do not mix tube and fitting/ valve alloys whenever possible
- Use 6Mo for high pitting/ crevice corrosion performance
- Use Super Duplex for its tensile strength
- Do not use Twin Ferrule on Super Duplex rather use Phastite
- Use our range of exotic materials for demanding applications and NACE compliance

Let us help you select the best solution for your application. Start thinking **smarter, faster, cleaner** and **safer**.



For a successful and prolonged corrosion-free service, make sure the following parameters are checked during the design stage:

<input type="checkbox"/>	Operating conditions, including temperature, pressure and media contained
<input type="checkbox"/>	Environment
<input type="checkbox"/>	Legislation and Internal Regulations
<input type="checkbox"/>	Cost
<input type="checkbox"/>	Availability
<input type="checkbox"/>	Lead time
<input type="checkbox"/>	Expected life time of the equipment
<input type="checkbox"/>	Safety

PMI (Positive Material Identification) Testing

We have seen a noticeable increase in the demand for PMI testing of our products both for Project customers and for orders placed through our Distributors.

PMI testing requires trained and certified staff together with specialised test equipment, which are normally provided by third party testing companies. This has proved to be a time consuming and costly process.

In order to contain costs, provide shorter lead times and an overall higher service we have invested in our own PMI testing equipment and have had several employees trained to perform PMI testing.



IPDE Testing Procedures.

There are no accepted market standards for PMI testing procedures and in many cases the orders that we receive simply request PMI or call for a customer specific procedure. Our Project experience shows us that in most cases customers require 10% or 100% product testing of the pressure containment components of our products. To simplify the requesting of PMI testing we have produced 2 test procedures that cover 10% and 100% testing of pressure containing components.

These are:

ESSF123/10 - order code PMI10

This procedure specifies that the pressure containing components for 10% of the order quantity will be PMI tested. EG for an order of 100 pieces, the pressure containment components of 10 pieces will be tested. A copy of this standard will be sent to each Distributor along with pricing information by separate cover.

ESSF123/100 – order code PMI100

This procedure specifies that the pressure containing components for 100% of the order quantity will be PMI tested. EG for an order of 100 pieces, the pressure containment components of 100 pieces will be tested. A copy of this standard will be sent to each Distributor along with pricing information by separate cover.

Parker Hannifin Instrument Tubing

Parker now offers quality-assured seamless stainless steel tubing



The ABILITY to provide the total instrumentation tubing packages!

When you want to reduce the risk of leakage in your hydraulic and instrumentation system, consider Parker seamless stainless steel tubing. Every step of the tube production is controlled to ensure consistent quality. Parker tubing are characterized by the ovality, concentricity and hardness limits required for superior performance in hydraulic and instrumentation system applications, Plus Parker tubing offers the high surface smoothness and close dimensional tolerances needed to ensure there are no leakages when connected with Parker fittings.

Let's engineer your cost savings with Parker seamless stainless steel tubing.



Product Features:

Product Benefits:

<ul style="list-style-type: none"> •A complete package of tube fittings and tubing via a single order 	<ul style="list-style-type: none"> •The installer ONLY needs to develop ONE source for products •Reduce your vendors
<ul style="list-style-type: none"> •Weld-ability 	<ul style="list-style-type: none"> •Controlled and consistent quality of steel grades provide easy welding
<ul style="list-style-type: none"> •Plugged ends 	<ul style="list-style-type: none"> •Protection of tube ends and ID from environments contamination
<ul style="list-style-type: none"> •Superior OD Finish and Close tolerances 	<ul style="list-style-type: none"> •Ensure a high integrity system with Parker tubing and fittings
<ul style="list-style-type: none"> •Strictly controlled ovality, concentricity and hardness 	<ul style="list-style-type: none"> •Superior performance in a wide variety of system applications, temperatures and pressures.
<ul style="list-style-type: none"> •High cleanness of Tubing Inside 	<ul style="list-style-type: none"> •Suitable for clean environment application
<ul style="list-style-type: none"> •Parker branded for quality assure 	<ul style="list-style-type: none"> •Easy to identify brand and tubing specifications along the full length of the tubing



ENGINEERING YOUR SUCCESS.

Ordering Information and Dimension

Tube O.D. inch	Nominal Wall Thickness inch	Basic Ordering Number		Weight kg/m
		Cold Rolled Tubing	Cold Drawn Tubing	
1/8"	0.028"	N/A	TUBE 1/8X.028-316L-CD	0.04
1/4"	0.035"	TUBE 1/4X.035-316L-CR	TUBE 1/4X.035-316L-CD	0.12
	0.049"	TUBE 1/4X.049-316L-CR	TUBE 1/4X.049-316L-CD	0.16
3/8"	0.035"	TUBE 3/8X.035-316L-CR	TUBE 3/8X.035-316L-CD	0.19
	0.049"	TUBE 3/8X.049-316L-CR	TUBE 3/8X.049-316L-CD	0.26
	0.065"	TUBE 3/8X.065-316L-CR	TUBE 3/8X.065-316L-CD	0.33
1/2"	0.035"	TUBE 1/2X.035-316L-CR	TUBE 1/2X.035-316L-CD	0.26
	0.049"	TUBE 1/2X.049-316L-CR	TUBE 1/2X.049-316L-CD	0.36
	0.065"	TUBE 1/2X.065-316L-CR	TUBE 1/2X.065-316L-CD	0.46
3/4"	0.049"	TUBE 3/4X.049-316L-CR	TUBE 3/4X.049-316L-CD	0.55
	0.065"	TUBE 3/4X.065-316L-CR	TUBE 3/4X.065-316L-CD	0.72
	0.083"	TUBE 3/4X.083-316L-CR	TUBE 3/4X.083-316L-CD	0.90
	0.095"	TUBE 3/4X.095-316L-CR	TUBE 3/4X.095-316L-CD	1.01
	0.105"	TUBE 3/4X.105-316L-CR	TUBE 3/4X.105-316L-CD	1.10
1"	0.065"	TUBE 1X.065-316L-CR	TUBE 1X.065-316L-CD	0.98
	0.083"	TUBE 1X.083-316L-CR	TUBE 1X.083-316L-CD	1.23

Term Definition:

CR: Cold Rolled

CD: Cold Drawn

Nominal Length: 6 meters / EA

Material Standards

Grade: 316L

UNS: S31603

ASTM: A213/A269

ASME: SA213

Remarks: Special material tubing please directly contact Park company.

Tube O.D. mm	Nominal Wall Thickness mm	Basic Ordering Number		Weight kg/m
		Cold Rolled Tubing	Cold Drawn Tubing	
3	0.71	N/A	TUBE 3mmX0.71-316L-CD	0.04
6	1.00	TUBE 6mmX1.0-316L-CR	TUBE 6mmX1.0-316L-CD	0.13
	1.50	TUBE 6mmX1.5-316L-CR	TUBE 6mmX1.5-316L-CD	0.17
8	1.00	TUBE 8mmX1.0-316L-CR	TUBE 8mmX1.0-316L-CD	0.18
	1.50	TUBE 8mmX1.5-316L-CR	TUBE 8mmX1.5-316L-CD	0.24
10	1.00	TUBE 10mmX1.0-316L-CR	TUBE 10mmX1.0-316L-CD	0.23
	1.50	TUBE 10mmX1.5-316L-CR	TUBE 10mmX1.5-316L-CD	0.32
12	1.00	TUBE 12mmX1.0-316L-CR	TUBE 12mmX1.0-316L-CD	0.28
	1.50	TUBE 12mmX1.5-316L-CR	TUBE 12mmX1.5-316L-CD	0.40
	2.00	TUBE 12mmX2.0-316L-CR	TUBE 12mmX2.0-316L-CD	0.50
14	2.00	TUBE 14mmX2.0-316L-CR	TUBE 14mmX2.0-316L-CD	0.60
	2.50	TUBE 14mmX2.5-316L-CR	TUBE 14mmX2.5-316L-CD	0.72
16	1.50	TUBE 16mmX1.5-316L-CR	TUBE 16mmX1.5-316L-CD	0.54
	2.00	TUBE 16mmX2.0-316L-CR	TUBE 16mmX2.0-316L-CD	0.70
18	1.50	TUBE 18mmX1.5-316L-CR	TUBE 18mmX1.5-316L-CD	0.62
	2.00	TUBE 18mmX2.0-316L-CR	TUBE 18mmX2.0-316L-CD	0.80
20	2.00	TUBE 20mmX2.0-316L-CR	TUBE 20mmX2.0-316L-CD	0.90
22	2.00	TUBE 22mmX2.0-316L-CR	TUBE 22mmX2.0-316L-CD	1.00
25	2.00	TUBE 25mmX2.0-316L-CR	TUBE 25mmX2.0-316L-CD	1.15
	2.50	TUBE 25mmX2.5-316L-CR	TUBE 25mmX2.5-316L-CD	1.41

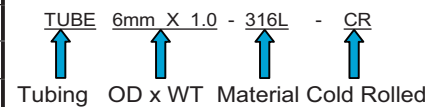
Chemical Composition

Element	Composition, wt. %
Chromium	16.0-18.0
Nickel	10.0-15.0
Molybdenum	2.00-3.00
Manganese	2.00 max
Silicon	0.75 max
Carbon	0.035 max
Sulfur	0.03 max
Phosphorus,	0.04 max

Finish hardness

≤90 HRB

How To Order Tubing



Dimensional Tolerances

Tolerances according to ASTM A213/A269/A632

Product	Size	Tolerances OD mm	Tolerances Length mm	Tolerance Wall Thickness %
CR Tubing	1/4"-1"	±0.08 mm	0-3.00mm	±10
	6 mm - 25 mm	±0.08 mm	0-3.00mm	±10
CD Tubing	1/8"-1"	±0.10 mm	0-3.00mm	±10
	3 mm – 25 mm	±0.10 mm	0-3.00mm	±10

Cleaning and Packaging

Product	ID Finish
CR Tubing	20 uin (0.5 um) Ra Max
CD Tubing	Standard Finish (Reference ASTM A269)

All of Tubing ends are protected with polyethylene caps.

CR Tubing is packed in single polyethylene, heat-sealed bags.

CD Tubing is bulk packed in polyethylene, heat-sealed bags.

Instrument Tubing Selection Guide

Maximum Allowable Working Pressure Rating Table In Psi Unit

316L STAINLESS STEEL (Seamless)																
Tube O.D. Size	Wall Thickness															
	0.010	0.012	0.014	0.016	0.020	0.028	0.035	0.049	0.065	0.083	0.095	0.109	0.120	0.134	0.156	0.188
1/16	5600	6900	8200	9500	12100	16800										
1/8						8600	10900									
3/16						5500	7000	10300								
1/4						4000	5100	7500	10300							
5/16							4100	5900	8100							
3/8							3300	4800	6600							
1/2							2600	3700	5100	6700						
5/8								3000	4000	5200	6100					
3/4								2400	3300	4300	5000	5800				
7/8								2100	2800	3600	4200	4900				
1									2400	3200	3700	4200	4700			
1-1/4										2500	2900	3300	3700	4100	4900	
1-1/2											2400	2700	3000	3400	4000	4500
2												2000	2200	2500	2900	3200

Remark: Ratings in gray not suitable for gas service.

Autoclave Engineers

Valves, Fittings and Tubing

Condensed Catalog



简介

速拆接头和液压阀

全球的产品性能 决无任何妥协

自 1935 年起, Snap-tite Inc. 的 Quick Disconnect and Valve Division 提供的速拆接头的组合形式、尺寸规格和型号数量始终居于世界众多制造商之首。

数以百计的市场和行业需要依靠我们生产的接头来满足最为严苛的工作条件下的性能要求。

从海底世界到太阳系边缘,
在世界任何角落,

Snap-tite 速拆接头都代表着相关行业标准。

我们的优势在于提供符合每位客户不同需求的专家级解决方案.....准时提供最适当的产品, 始终如一的卓越品质以及公道合理的价格。

Snap-tite 承诺产品性能绝无任何妥协。
这表示我们将竭尽全力帮助您的业务取得更好的效益。
这是我们每日的承诺。

产品类型:

干式接头

干式: 该术语指的是滑动套筒型液压速拆接头, 其特性包括: 连接时几乎无空气混入或者拆卸时几乎没有空气泄漏。通常也称为无泄漏、平面以及干净接头。

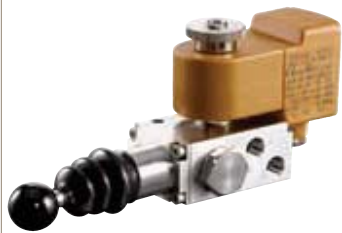
提升阀式接头

提升阀: 指的是当拆分两个相配合的零件的快速接头时, 用于阻止液体流动的这类阀。因为其功能简单、制造容易, 提升阀式的快速分离接头如今已成为应用最为广泛的一类接头。

Parker

Snap-tite





航空航天
环境控制
机电
过滤
流体与气体处理
液压
气动
过程控制
密封与屏蔽



© 承蒙Statoil惠允

近海及陆上应用 Lucifer™ 2/2 和 3/2 316L不锈钢电磁阀



应用于抗腐蚀，存在爆炸性气体的危险区域

北海近海极端恶劣的操作环境，严峻、安全性以及有害地区的要求使得设计具有常规电磁阀一般并不具备的特色。

本手册中所述316不锈钢电磁阀系列是北海操作员与Parker Lucifer SA 公司多年合作的结果，而后者在电磁阀的设计及开发方面占有世界领先地位。

Parker的产品遵循严格的质量保证和材料的可追溯性，均附有相应的证书。

当应用于执行器控制阀或冗余系统时我们根据 ATEX 和 IECEx 认证来提供许多保护方法(“ia”, “d”, “e” & “mb”)。

我们保证最高的质量、可靠性和安全性。F、V及X系列电磁阀可在SIL2及SIL3回路中工作。



应用

- 执行器控制。
- 保证开/关主阀或调节阀的无差错功能。万一电流出现故障，主阀保持其处于安全位置。无差错阀可用电流(U)133X 或者手动 (U)033X 来归零。

特点

- 全系列的 ATEX 和 IECEx 认证线圈完全符合前述 EN 及 IEC 标准。
- 完全可追溯的制造计划，以及 25年在近海工业方面的实地证实技术。
- 全系列抗腐蚀阀门具备尖端低温阀技术。

危险区域 (ATEX: 爆炸性危险气体)

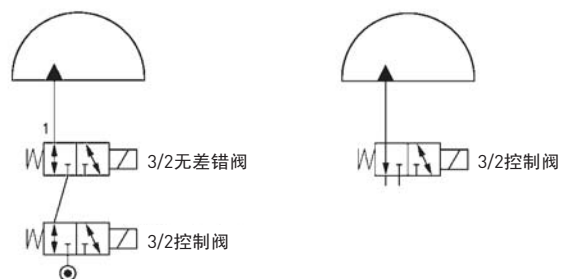
几种任选电器零件，经认证可按照我们的电器零件/阀体兼容性一览表(见页码6)组合来适用于危险区域。

抗腐蚀 (不锈钢 316 L 材料)

这些阀门经特殊设计可适用于腐蚀性环境(盐雾和酸性气体)。

3/2电磁阀的常闭(阀参考数第3位数 = 1)功能及通用功能(第3位数 = 3)。

在腐蚀性及危险区域用于执行器控制和无差错功能。



技术数据

基本型号

V系列阀门: 直接管道安装

共同特色:

提升阀设计, Viton, PUR, 阀座。

安全阀体工作压力:

10500 kPa /105 bar 对应 F,
V 及 X 型阀
(U033X5195 阀除外: SBWP=15 bar)

阀的安装:

- 直接管道安装: 阀V及阀X
- 底座安装(或者法兰): 阀 F + 3 阀 X 参考值

安装位置:

任意位置

阀体材料:

316L不锈钢

阀门密封材料:

Buna (NBR), Viton (FKM),
Polyurethan (PUR)

阀座材料:

不锈钢(阀F及阀V), 聚酰胺(阀X)

介质:

干的或者经润滑的仪表或工业气体, 包括氮气(121V阀)

过滤:

50µm 或更高

开/关功能, 2/2电磁阀, 直接操作, 通常关闭(通常关闭: 阀参考数第3位数 = 1)

U121V 5595
U121V 5596
U121V 5596 1D

标称通径: 1.0 mm
流量: 40 NL/min.
(Cv = 0.04)
ΔP 最大值: 9800 kPa
(98 bar)
阀体连接: 1/4 NPT

阀门可整合于整个 SIL 3 安全环路 (IEC 61508)。

开/关, 混合及分配功能, 3/2电磁阀, 直接操作, 通用式(通用: 阀参考数第3位数 = 3)

U133V 5595
U133V 5595 1D
U133V 5695
U133V 5695 1D

标称通径: 2.0 & 2.5 mm
流量: 140 & 220 NL/min.
(Cv 0.18 & 0.25)
ΔP 最大值: 1200 & 850 kPa
(12 & 8.5 bar)
阀体连接: 1/4 NPT (端口 1&2)
1/8 NPTF (端口 0)

阀门可整合于整个 SIL 3 安全环路 (IEC 61508)。



F系列阀门： 法兰安装

开/关，混合及分配功能，3/2电磁阀，直接操作，常闭(常闭: 阀门参考数第3位数 = 1)

U131F 5695
U131F 5695 1D

标称通径: 2.5 mm
流量: 220 NL/min.
(Cv = 0.25)
ΔP 最大值: 1200 & 1400 kPa
(12 & 14 bar)
阀体连接: 法兰

阀门可整合于整个 SIL 3 安全环路 (IEC 61508)。



X系列阀门： 直接管道安装

开/关，混合及分配功能，3/2电磁阀，直接操作，通用式(通用: 阀门参考数第3位数 = 3)

U133X 5152*
U133X 5156* / 5156 1D*
U133X 5192
U133X 5296 / 5296 1D

* 阀有手动操作功能

标称通径: 6.0 mm
流量: 680 NL/min.
(Cv 0.63)
ΔP 最大值: 1000 kPa
(10 bar)
阀体连接: 1/4 NPTF
3/8 NPTF

DIN V 19251 AK7 经认证阀门可整合于整个 SIL 2 及 SIL 3 安全环路(IEC 61508)。



开/关，混合及分配功能，3/2电磁阀，通用阀(阀门参考数第3位数 = 3)，有手动复位功能(阀门参考数第1位数 = 0)

U033X 5152
U033X 5156 / 5156 1D
U033X 5256 / 5256 1D

标称通径: 6.0 mm
流量: 680 NL/min.
(Cv 0.63)
ΔP 最大值: 1000 kPa
(10 bar)
阀体连接: 1/4 NPTF
3/8 NPTF

DIN V 19251 AK7 经认证阀门可整合于整个 SIL 2 安全环路(IEC 61508)。




手动复位功能

这些阀门在电信号出故障时会关闭。电信号恢复时，阀门仍然关闭，必须用手复位。

如果线圈未通电，可摁手动复位按钮来开启该阀门(与手动操作功能相同)，但只有在摁了手动复位按钮而线圈通电之后阀才保持开启。

还有其他的阀门参考数，如手动复位 U033X5195 (首页顶端图解)，附带其他性能数值。见页码6。

型号

		兼容电器零件 																
		ATEX 区域																
		0/20 - 1/21 & 2/22					1/21 & 2/22											
类别	型号	不锈钢 316L 阀体 + ...										ATEX 保护模式						
		开关方式	功能	手动功能	安装	螺纹	尺寸	Qn (单位 NL/mm)	Cv	最大 ΔP (单位 bar)	口径 (单位 mm)	密封材料	本安		隔爆外壳		浇封	
													Ex ia IIC T6		Ex d mb IIC T4 to T6		Ex e mb II T4 to T6 ⁽⁵⁾	
482870.01	492965.01	483270	483270.02	492210	492310													
F	U131F5695	常闭	3/2	-	法兰 ⁽¹⁾	Ø 3.25	220	0.25	12	2.5	FKM	x				x	x	
	U131F56951D	常闭	3/2	-	法兰 ⁽¹⁾	Ø 3.25	220	0.25	14	2.5	FKM		x	x				
V	U121V5595	常闭	2/2	-	管道	NPT 1/4-18	40	0.04	98	1	PUR	x				x	x	
	U121V5596	常闭	2/2	-	管道	NPT 1/4-18	40	0.04	98	1	PUR						x	
	U121V55961D	常闭	2/2	-	管道	NPT 1/4-18	40	0.04	98	1	PUR		x	x				
	U133V5595	通用	3/2	-	管道	NPT 1/4-18	140	0.18	12	2	FKM	x				x	x	
	U133V55951D	通用	3/2	-	管道	NPT 1/4-18	140	0.18	12	2	FKM		x	x				
	U133V5695	通用	3/2	-	管道	NPT 1/4-18	220	0.25	8.5	2.5	FKM	x				x	x	
	U133V56951D	通用	3/2	-	管道	NPT 1/4-18	220	0.25	8.5	2.5	FKM		x	x				
X	U033X5152	通用	3/2	M.R. ⁽²⁾	管道	NPT 1/4-18	680	0.63	10	6	NBR	x					x	
	U033X5156	通用	3/2	M.R. ⁽²⁾	管道	NPT 1/4-18	680	0.63	10	6	NBR	x					x	
	U033X51561D	通用	3/2	M.R. ⁽²⁾	管道	NPT 1/4-18	680	0.63	10	6	NBR		x	x				
	U033X5195	通用	3/2	M.R. ⁽²⁾	管道	NPT 1/4-18	680	0.45	10	6	FKM	x					x	
	U033X5256	通用	3/2	M.R. ⁽²⁾	管道	NPT 3/8-18	680	0.63	10	6	NBR	x					x	
	U033X52561D	通用	3/2	M.R. ⁽²⁾	管道	NPT 3/8-18	680	0.63	10	6	NBR		x	x				
	U131X1201	常闭	3/2	-	接口	NPT 3/8-18	680	0.63	10	6	NBR	x				x	x	
	U133X5152	通用	3/2	M.O. ⁽³⁾	管道	NPT 1/4-18	680	0.63	10	6	NBR						x	
	U133X5156	通用	3/2	M.O. ⁽³⁾	管道	NPT 1/4-18	680	0.63	10	6	NBR	x				x	x	
	U133X51561D	通用	3/2	M.O. ⁽³⁾	管道	NPT 1/4-18	680	0.63	10	6	NBR		x	x				
	U133X5192	通用	3/2	-	管道	NPT 1/4-18	680	0.63	10	6	NBR						x	
	U133X5195	通用	3/2	-	接口	NPT 1/4-18	680	0.63	10	6	FKM	x				x	x	
	U133X51951D	通用	3/2	-	接口	NPT 1/4-18	680	0.63	10	6	FKM		x	x				
	U133X5196	通用	3/2	-	管道	NPT 1/4-18	680	0.63	10	6	NBR	x				x	x	
	U133X51961D	通用	3/2	-	管道	NPT 1/4-18	680	0.63	10	6	NBR		x	x				
	U133X5296	通用	3/2	-	管道	NPT 3/8-18	680	0.63	10	6	NBR	x				x	x	
	U133X52961D	通用	3/2	-	管道	NPT 3/8-18	680	0.63	10	6	NBR		x	x				
		标准参考 IEC/EN 60079-0 / 61241-0... +										60079-11 61241-1	60079-1 & 18 61241-1	60079-7 & 18 61241-1				
		符合证书 ATEX: LCIE 02 ATEX... IECEX: IECEX LCI...										6024 X 6066 X 07.0007X	6008 X	6023 X 06.0011X				
		IP等级										IP 66	IP 66 ⁽⁴⁾	IP 66				
		最大容许外壳表面温度 GAS (瓦斯)										85 °C	100 °C	85 °C 100 °C				
		最大容许外壳表面温度 DUST (尘埃)										80 °C	95 °C	80 °C 95 °C				
		电能消耗										0.8 W 0.3-2.3W DC DC	8W	1-1.5W 6W				
		电气接口										M20 x 1.5	M20 x 1.5 1/2 NPT	M20 x 1.5				
												增强器	增强器					

- (1) 法兰 / 底座安装
- (2) 手动复位 (安全功能: 两种行动都有必要: 线圈通电 + 操作员摁按钮)
- (3) 手动操作 (推入)
- (4) 当使用合适的Ex电气接头时
- (5) 见线圈最高室温

质量

质量保证

每台电磁阀都有自己的识别编号。出厂时附有质量保证书，确保以下项目：

关键零件识别

关键零件，即直接介入阀门动作过程的零件，有识别编号。
保证所有识别的零件制造材料可以追根溯源。
识别的不锈钢零件均有 EN10204.3.1B 宣告书或者供应商的证明书。

最终测试宣告书

确认处于最小和最大额定压力时的正确阀门功能，附有电源额定值，确保内外最大泄漏率数值与阀的规格相符。



SQS 及 IQnet 证书

瑞士质量保证书协会(SQS)按照 ISO 9001/14001 已经颁发 SQS 及 IQnet 证书，确认 Parker Lucifer 公司具有质量保证系统，达到上述国际标准。

ATEX 及 IECEx 认证的电器零件

Parker Lucifer 公司出产所有系列已认证线圈，可在危险区域(瓦斯及尘埃环境)用于地表以上应用项目(Ex II)。

现有各种技术解答(ATEX & IECEx 保护模式“ia”，“d”，“e” & “mb”)允许顾客面对任何特定要求。





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 fluid & gas handling
 hydraulics
pneumatics
 process control
 sealing & shielding



Stainless Steel Air Preparation Units

Filters, Regulators, Lubricators

Catalog 0717-E



ENGINEERING YOUR SUCCESS.

Parofluor™ Advanced Perfluorinated Elastomers

What is Parofluor™?

Parofluor is a unique advanced perfluorinated elastomer (FFKM) developed and produced exclusively by Parker Hannifin's Seal Group. Perfluorinated elastomers provide performance beyond all other available elastomer families. Parofluor has outstanding retained resiliency as compared with other perfluorinated elastomers, and is formulated specifically for use in the most aggressive sealing applications.



What is Parofluor ULTRA™?

Parofluor ULTRA is a new generation of ultra high-performance perfluorinated elastomers. These materials offer major advantages over traditional fluoroelastomer and other perfluorinated materials:

- Ultra-high temperature resistance (up to 320°C/608°F)
- Broad chemical resistance
- Ultra-high purity

See reverse for Parofluor ULTRA material specifications.

Parofluor Applications:

Parofluor and Parofluor ULTRA materials solve application problems within the critical environments of semiconductor fabrication, aerospace, chemical processing, energy exploration and production, pharmaceutical, and other harsh fluid handling processes.

Parofluor and Parofluor ULTRA materials offer excellent compression set resistance, superior thermal stability and compatibility with a wide range of harsh chemistries, making them the ideal solution for sealing applications that exceed the limits of other high performance elastomers.



Parofluor and Parofluor ULTRA Availability:

Parofluor and Parofluor ULTRA materials are available from 65 to 90 shore A hardness in black and white formulations. Products are available in standard, non-standard, large diameter continuous molded and JIS O-rings, slab or sheet stock, custom molded shapes, PIP (press-in-place) profiles and rubber-to-metal bonded seals.

Parofluor and Parofluor ULTRA Advantages:

- Ultra-high temperature resistance (up to 320°C/608°F)
- Broad chemical resistance
- Excellent compression set resistance
- Economical choice for improved predictability of maintenance intervals
- Ultra High Purity (UHP) manufacturing systems
- In-house tooling capability
- 1-2 weeks standard lead time
- Local stocking distributor network

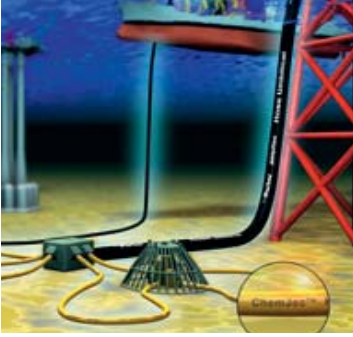
Parker Advantages:

- Leading technology in elastomer development
- Total sealing product solutions
- Broadest range of material offering
- Finite Element Analysis (FEA)
- Applications engineering assistance
- TOTAL inPHorm™ seal design software assistance

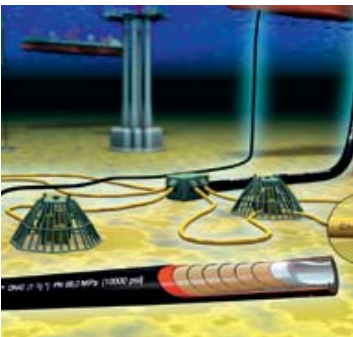
For additional information about Parofluor™ and Parofluor ULTRA™, visit our website www.parofluor.com

fact sheet

UPDATED 4/02

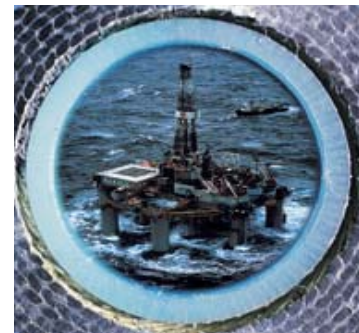


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Black Eagle Product Manual

Catalogue 4466-UK



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Hose, Fittings and Equipment

Catalog 4400 October 2011



HoseFinder^{2.0}
Parker Hose Selection Guide

ENGINEERING YOUR SUCCESS.



Low, Medium, High and Ultra Pressure Hose



Parkrimp® Permanent Hose Fittings



Parkrimp® Assembly Equipment



Field Attachable Fittings



HoseFinder^{2.0}
Parker Hose Selection Guide

Mobile Phone Applications

Hose Products Division



Parker Tracking System



ParkerStore™ Onsite Container Program



Custom Hose Assemblies and Hose Fittings



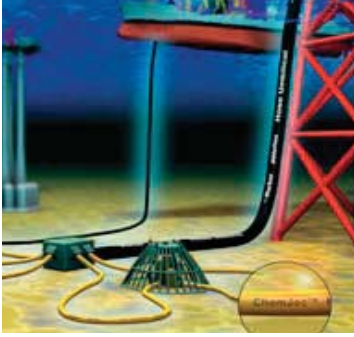
Accessories

With a long history of providing premier customer service, Hose Products Division is the leading manufacturer of hose, fittings and crimping technology for industrial and hydraulic markets. Continually expanding our products to better serve the market, we offer world-class service technologies including the Parker Tracking System, Onsite containers, rapid prototyping and smart phone applications. Our division headquarters in Wickliffe, Ohio, is our precision-engineered-solution center for products, materials and processes, and is equipped with state-of-the-art development, testing and performance technology. Hose Products Division has eight manufacturing locations within the United States dedicated to delivering a quality product on time. Knowing that uptime and productivity are major drivers in your business success, we proudly present our new catalog outlining Parker's best-in-class hose products and services.

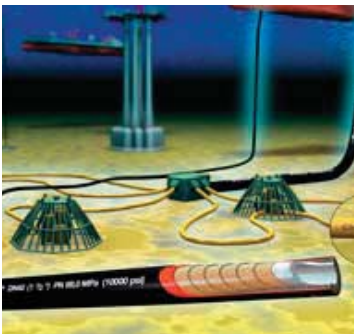
Best regards,

Beth

*Beth Byrd
General Manager*



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Thermoplastic Hoses for the Oil and Gas Industry

Oil & Gas Catalogue 4465 –
Global Edition 2010



Introduction

The Parflex and Polyflex divisions of Parker Hannifin have been supplying a wide range of thermoplastic hose products to the oil and gas market for over 30 years.

With sizes ranging from 2 mm to 2" and working pressures from 6 bar to 60,000 psi they offer the widest range of thermoplastic hoses available.

With production plants in both the USA and Europe supported by Parker's global sales and distribution network, customers can benefit from local service and the supply of quality parts wherever they are situated.

This catalogue concentrates on the thermoplastic hoses and associated products such as umbilicals, adapters and couplings. For more information about Parker's other oil and gas products, such as marine transfer hoses and tube umbilicals contact your nearest Parker sales office.

The Energy Products Division is the newest global division within the Fluid Connectors Group to focus on emerging market platforms; providing technical solutions in a wide variety of markets worldwide.

Specific products include:

- Subsea umbilical/cable manufacturing; service/installation
- Scanrope - Long term steel mooring line & fiber ropes
- Multitube - Instrument & Heat Trace Tubing and Bundles
- Polyflex Ultra High Pressure Thermoplastic Hose & Fittings
- Marine Hoses (Parker ITR S.r.l. - Business Unit Oil & Gas)
- Maritime - position monitoring / surveying systems & service
- Hydraulic Hose & Fittings – Tooling & Equipment – Hose Accessories

Applications include but are not limited to: Oil & Gas (Drilling, refining, mooring, transfer & surveying), renewable energy, waterblast, waterjet cutting, surface prep, "water as a tool", rescue tool, high pressure hydraulics, high pressure testing, veterinary, and environmental monitoring system.





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Thermoplastic Hoses for Ultra High Pressure

Catalogue 4462 Global Edition



