

Section 1

ATC Saudi Company Profile



MISSION STATEMENT

ATC Saudi mission is to provide advanced, practical and top-quality services and Products that save time, money and improve the way building services operate. We believe our first responsibility is to the customer who uses our Products Through a long-term commitment to this mission, we are known as a company that cares for customer satisfaction and consider commitment our Slogan.

HVAC Division:

We are in ATC Saudi Company Ltd., covering most of our client's requirements in HVAC fields, whether our customer is ductwork factory or EM contractor or even system installer. The supplied materials could be according to the American or European Standards. In ATC Saudi we cover Domestic ventilation, ventilation for offices, hospitals and industry,grilles for comfort applications, special grilles for high ceilings, temperature-controlled grilles and grilles with remote controls. In addition to that all products conform to EN Standards. What matter is not only the product But also the right place and installed in the right way.

ATC SAUDI COMPANY LTD. Abdelkhalek Abdelkhalek **Operations Manager**



BUSINESS DESCRIPTION

Founded in 2005 and headquartered In Riyadh, ATC Saudi is a HVAC/ Hydronics trading services company. The company offers products and services ranging from hydronic distribution systems/room Temperature control, and all type of expansion tanks, air separator, degassing units, water make up. In addition to alltypes of Chilled & hot water valves/ Thermostatic Mixing Valves From IMI Hydronic Engineering. The company also provides all types of ducts accessories. Along with Fire-resistant duct work from Firemac.

On the other Hand the company has a division that deals with all types and ranges of industrial enclosures and accessories for Automation and Control applications. We have enclosures in mild steel, stainless steel, and aluminum with all the Required standards from ELDON to meet all Requirements.

ATC, the official distributor of IMI Hydronics Engineering in the Kingdom Of Saudi Arabia since 2011, have worked in many projects related to Industrial facilities, various Commercial facilities, Hotels and Hospitals. We differentiate ourselves in the HVAC/Hydronic market by providing outstanding service, innovation and industry through leadership with meeting deadline. ATC Saudi comprises of skilled Team & different department engineering team, giving the company valuable insight into engineering sectors especially in hydronics. Our success is defined not just by realizing our mission, but also by our reputation for integrity, fair and in time dealing.

ATC SAUDI COMPANY LTD.

Abdelkhalek Abdelkhalek Operations Manager





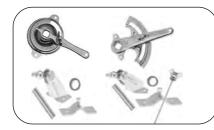
HVAC Division:

We are in ATC Saudi Company Ltd., covering most of our client's requirements into HVAC fields, whether our customer is ductworks factory or EM contractor or even system installer. The supplied materials could be according to the American or European Standards.

Based on that, we categorized our products as per the following:

- A. Air Devices: such like; Diffusers, Grilles, Registers, Valves and Louvers... etc.
- B. Air Volume Flow Control Devices: such like; Manual control dampers, Motorized control dampers, VAVs and CAVs... etc.

- C. Air Distribution Systems: such like; Pre-insulated PIR ducts, Flexible (insulated/non-insulated) ducts, Chimney and Grease ducts, Sound attenuators... etc.
- D. Hardware and Accessories: such like; Flanges, Corners, G-Clamps, Multi-blades damper hardware, Splitter damper hardware, Damper's quadrants and regulators, Mounting hangers and supports, Sealants, Adhesives, Mastics, Gaskets, Tapes, Fasteners, Flexible connectors, Access doors... etc.





















E. Fireproof Products: such like; Fire dampers, Fire/Smoke dampers, Fire-resistant grilles, Fireproof air valves, Fire stops... etc.

F. Fans: such like; Centrifugal in-line, Centrifugal roof-top, Axial wall-mounted, Axial jets, Smoke extracts and controllers... etc.

G. Air Conditioning Systems: such like; Air handling units, Fan coil units, Condensate pumps, Steam humidifiers, Dehumidifiers, Air curtains... etc.



IMI TA: General Duty valves Balancing Valves for Heating and Cooling systems



Ref.	Model	Description	Characteristics	ATC Saudi Co. Photo
Rel.	WOUEI	Description	Characteristics	Photo
1	STAD	Double Regulating Valve with Thread End Connection. Body: Ametal	PN20, Size: 10-50mm Working Temp.: -20°C / 120°C	
2	STAF STAF-SG	Double Regulating Valve with Flange End Connection. Body: Cast Iron / Ductile Iron	PN16 & PN25, Size: 65-400mm Working Temp.: -20°C / 120°C	
3	TA-60	Non-Rising Stem Gate Valve with Thread End Connection. Body: Ametal	PN16 & PN25, Size: 10-50mm Max. Working Temp.: 170°C	
4	TA-GAV	Non-Rising Stem Gate Valve with Flange End Connection. Body: Ductile iron	PN16, Size: 65-600mm PN25, Size 65-350mm Working Temp.: -20°C / 120°C	
5	TA-BAV	Ball Valve with Thread End Connection. Body: DZR	PN40, Size: 15-50mm Working Temp.: -20°C / 120°C	
6	TA-BTV	Butterfly Valve, Fully Lugged, Flange end Connection. Body: Cast Iron / Ductile Iron	PN16, Size: 65-600mm PN25, Size 65-600mm Working Temp.: -20°C / 120°C	
7	TA-STR	Y-Pattern Strainer with Thread End Connection. Body: DZR	PN25, Size: 15-50mm Working Temp.: -20°C / 120°C	P
8	TA-STR F	Y-Pattern Strainer with Flange end connection. Body: Cast Iron / Ductile Iron	PN16, Size: 65-600mm PN25, Size 65-600mm Working Temp.: -20°C / 120°C	
9	TA-NRV	Swing Type Check Valve with Thread End Connection. Body: DZR	PN25, Size: 15-50mm Working Temp.: -20°C / 120°C	
10	TA-NRV F	Swing Type Check Valve with Thread End Connection. Body: Cast Iron / Ductile Iron	PN16, Size: 65-600mm PN25, Size 65-300mm Working Temp.: -20°C / 120°C	



IMI TA / IMI FLOW DESIGN:

Control technologies for the ultimate



in energy efficiency and system performance

		_		ATC Saudi Co.
Ref.	Model	Description	Characteristics	Photo
1	TA-COMPACT-P	Pressure Independent Balancing Control Valve (PIBCV) with Self-sealing Measuring Points. Thread End Connection. Body: Ametal	PN16, Size: 10-32mm Working Temp.: 0°C / 90°C	
2	TA-MODULATOR	Pressure Independent Balancing Control Valve (PIBCV) with Self-sealing Measuring Points. Thread End Connection. Body: Ametal	PN16, Size: 15-32mm Working Temp.: -10°C / 120°C	
3	TA-MODULATOR	Pressure Independent Balancing Control Valve (PIBCV) with Self-sealing Measuring Points. Thread End Connection. Body: Ametal	PN16, Size: 40-50mm Working Temp.: 0°C / 90°C	
4	TA-MODULATOR	Pressure Independent Balancing Control Valve (PIBCV) with Self-sealing Measuring Points. Flange End Connection. Body: ductile Iron	PN16 & PN25, Size: 65-150mm Working Temp.: -10°C / 120°C	
5	TA-FUSION-P	Pressure Independent Balancing Control Valve (PIBCV) with Self-sealing Measuring Points. Thread End Connection. Body: Ametal	PN16, Size: 32-50mm Working Temp.: -10°C / 120°C	
6	TA-FUSION-P	Pressure Independent Balancing Control Valve (PIBCV) with Self-sealing Measuring Points. Flange End Connection. Body: ductile Iron	PN16 & PN25, Size: 65-150mm Working Temp.: -10°C / 120°C	
7	KTCM-512	Pressure Independent Balancing Control Valve (PIBCV) with Self-sealing Measuring Points. Thread End Connection. Body: ductile Iron	PN25, Size: 15-20mm Working Temp.: -10°C / 120°C	
8	KTM-512	Pressure Independent Balancing Control Valve (PIBCV) with Self-sealing Measuring Points. Thread End Connection. Body: ductile Iron	PN25, Size: 15-50mm Working Temp.: -10°C / 120°C	



IMI TA / IMI FLOW DESIGN:

Control technologies for the ultimate in energy efficiency and system performance



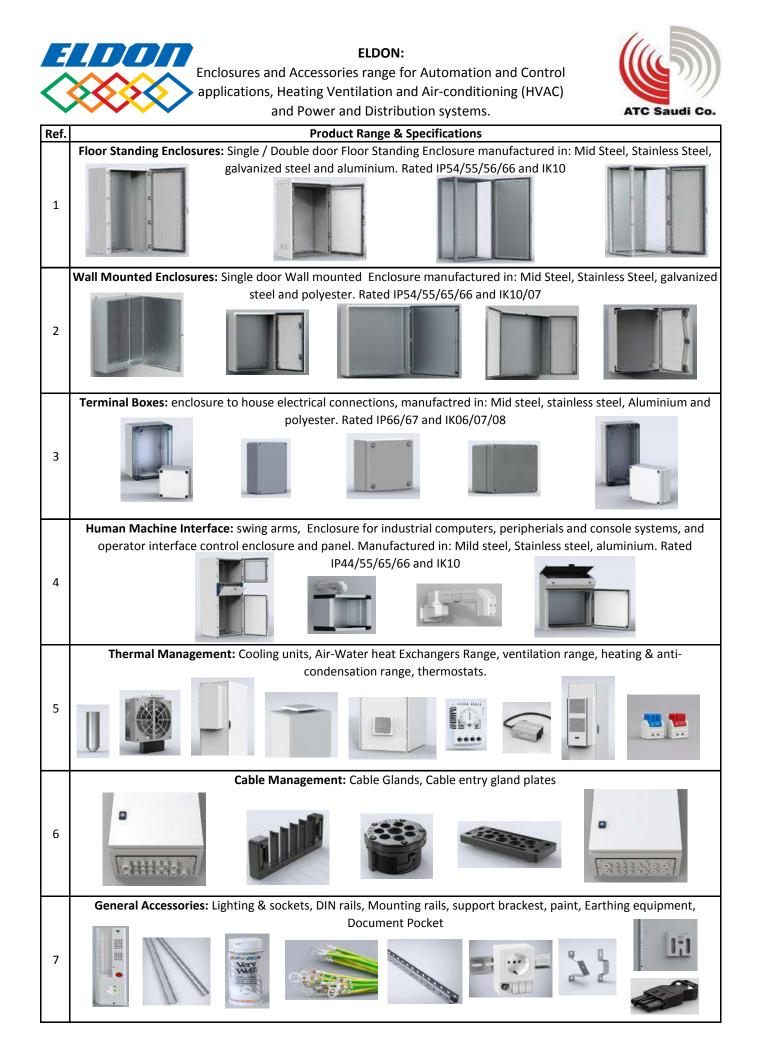
				ATC Saudi Co.
9	KTM-512	Pressure Independent Balancing Control Valve (PIBCV) with Self-sealing Measuring Points. Flange End Connection. Body: ductile Iron	PN25, Size: 65-125mm PN16, Size: 100-125mm Working Temp.: -10°C / 120°C	
10	YR	Automatic flow-Cotnrol Valves are factory set to automatically limit the flow to within 5% of the specified amount over 95% of the control range.		
11	WS	Automatic flow-Cotnrol Valves are factory set to automatically limit the flow to within 5% of the specified amount over 95% of the control range.	PN40, Size: 65-350mm PN16, Size: 400-750mm Max. Working Temp.: 120°C	Ge
12	CV216/316MZ CV216/316 RGA CV206/216/306/3 16GG CV216/316, 225/325, 240/340 S/E BR12WT		, innovative solutions for process er and butterfly valves for open and cl	ngineering, sanitary and
13		Actuators for On/Off, 3-Point	nt and Modulating Control	



IMI PNEUMATEX: Pressurisation, Dirt separation and Degassing solutions for HVAC systems



Ref.	Model	Description	Characteristics	Photo				
1	Zeparo	Micro Bubble Separator or/and Sludge & dirt Separator	PN10, Size 15-600mm Working Temp.: -10°C / 120°C					
2	Statico	Expassion vessel with fixed air cushion	Size: 8L-5000L Working Temp.: 5°C / 70°C					
3	Aquapresso	Pressure Stabilisation for Potable water	essure Stabilisation for Potable water Working Temp.: 5°C / 70°C					
4	Compresso Conenct	pressure maintenance systems with complete heating, solar heating and cooling water s						
5	Vento Connect	Cyclonic vacuum degasser for heating and systems. Its use is particularly recommen compact design and precision are require	ded where high performance,					
6	PLENO	Pressure-maintaining monitoring device i Ensures that the water reserve required f expansion vessels is given at all times.						
7	Transfero TI, TV Connect & TVI Connect	precision pressure maintenance device for use is particularly recommended where here required						



PROMAT:

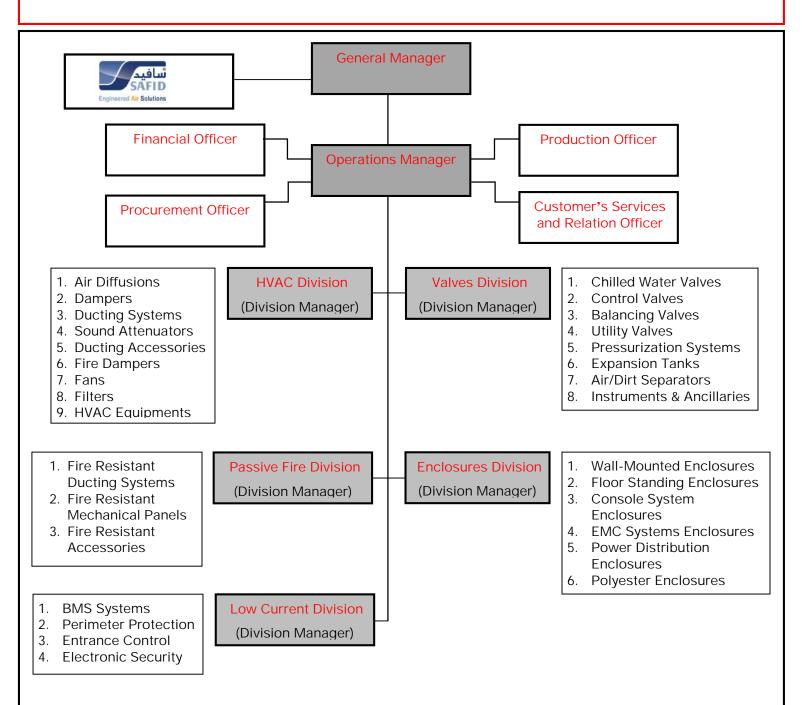


PROMAT: Range of passive fire protection and insulation solutions for the construction industry, solutions for the construction industry, infrastructures, tunnels and Oil and Gas Industry.

		l Oil and Gas Industry.	ATC Saudi Co.	
Ref.	Model	Description	Characteristics	Photo
1	PROMAT - DUCT WRAP	A grey, silica-wash treated e-glass cloth, w fixed to the outer face of galvanised or st or the fabric is less than 0.5 mm thick an ventilation ducts, smoke extract ducts, pr extract ducts	ainless steel ductwork. The cloth d designed to be used as normal	1
2	PROMASEAL - Acrylic Sealant	An acrylic based sealant which has slight it to swell upon heating and can achieve f in Linear joints seals in flexible & rigid wa Penetration seals around steel /copper pi & ladders.	ire rating upto 240 minutes. Used Ils and floor construction.	
3	PROMASEAL - Silicone Sealant	A Silicone based sealant used to reinstate Capable of achieving fire rating up to 240 seals in flexible & rigid walls and floor cor around steel /copper pipes, electrical cab		
4	PROMASEAL - HP Sealant	An acrylic based graphite sealant used to performance. Linear joints seals in flexible construction. Penetration seals around In non-metallic pipes, electrical cables, cable	e & rigid walls and floor sulated metallic pipes,	
5	PROMASTOP - Wrap	Designed and tested to seal service penet plastic and metallic pipes with insulation, based on graphite intumescent technolog rigid walls and floor construction. Penetra pipes and pipes with insulation.	using thermoplastic composites gy. Used in Penetration seals in	
6	PROMASTOP - Collar	Designed and tested to seal service penet plastic and metallic pipes with insulation seals in flexible/rigid walls and floor consi seals around nonmetallic pipes and pipes	or cables. Used in Penetration truction, firebatts. Penetration	
7	PROMASTOP - Firebatt	Coated mineral wool board used to reinst performance of wall constructions where apertures for the penetration of single or types of M& E service penetration seals in construction.	they have been provided with multiple services. Used in All	
8	PROMASTOP - Fire Compound Extra (Mortar)	Gypsum based mortar material, used to r performance of floor constructions where apertures for the penetrations of multiple E Service penetration seals in rigid walls a	e they have been provided with e services. Used in All types of M&	jil
9	PROMASTOP - Flex Coat	An acrylic based sealant used to reinstate of gaps in and joints in rigid floor constru- Used in Linear joints seals in rigid walls ar seals around steel /copper pipes, electric	ctions and service penetrations. Ind floor construction. Penetration	

Organization Chart of ATC Saudi Company Ltd.







Section 2

Scope of Supply



ENGINEERING HVAC SOLUTIONS

شركة أى تى سى السعودية دم

ATC Saudi Co. Ltd P.O.Box: 15300 Riyadh 11444 Kingdom of Saudi Arabia Tel.: +966 1 242 8550, Fax: +966 1 242 8685

SCOPE OF SUPPLY



(Sweden, Poland, Germany, Switzerland, USA)

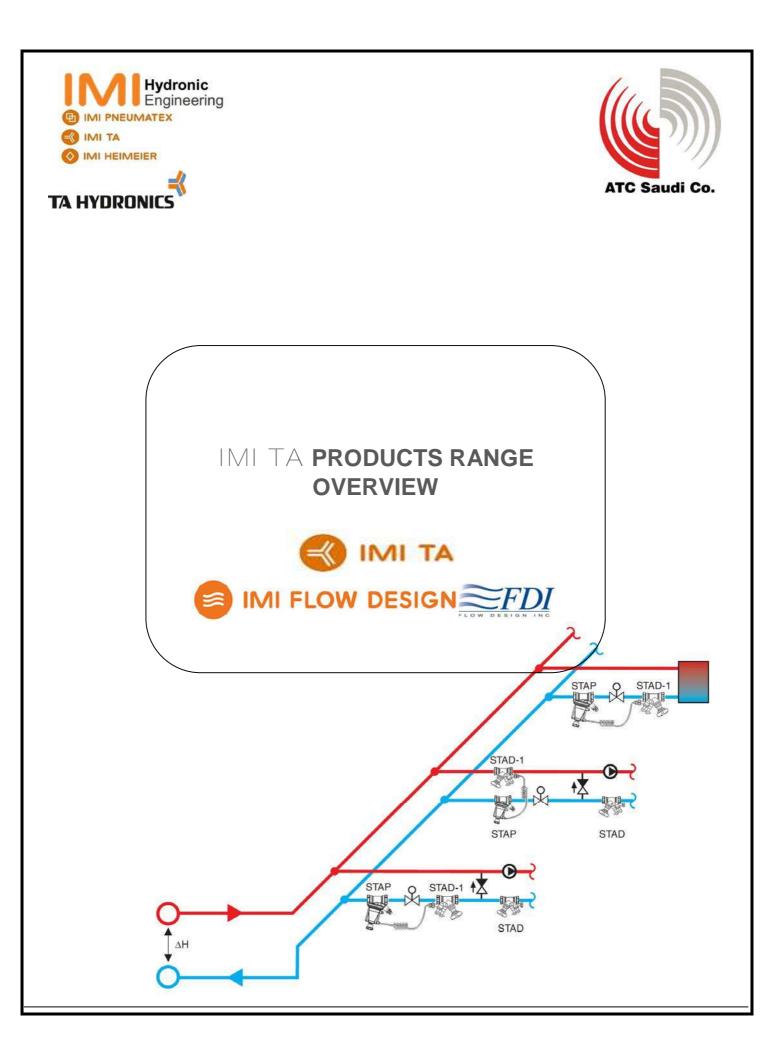


Passive Fire Protection Solution



ENCLOSURE Solutions for every need (UK, Romania, Spain)

Official Distributor ATC SAUDI CO. Ltd.







т	A HYDRONICS						ATC Saudi Co.
NO.	DESCRIPTION		MODEL	Max. (ΔpVmax), KPA	SIZE (MM)	PN RATING	Actuator
1	PRESSURE INDEPENDENT BALANCING & CONTROL VALVES, THREAD END WITH SELF SEALING MEASURING POINTS		TA-COMPACT-P	ΔP max 400 Kpa	10-32 Thread End	PN16	ЕМО Т / ЕМО ТМ
2	PRESSURE INDEPENDENT BALANCING & CONTROL VALVES, THREAD END WITH SELF SEALING MEASURING POINTS		TA-Modulator	ΔP max 600 Kpa	15-32 Thread End	PN16	DN 15-20: TA-Slider 160 , EMO TM DN 25-32: TA-Slider 160
3	PRESSURE INDEPENDENT BALANCING & CONTROL VALVES, Thread END WITH SELF- SEALING MEASURING POINTS		TA-Modulator	ΔP max 400 Kpa	40-50 Thread End	PN16	TA-Slider 500
4	PRESSURE INDEPENDENT BALANCING & CONTROL VALVES, Flanged END WITH SELF- SEALING MEASURING POINTS		TA-Modulator	ΔP max 800 Kpa	65-150 Flanged End	PN16	TA-Slider 750, 1250 & TA- MC160
		🔺 🖗			32-50 Thread End	PN16	TA-Slider 750 TA-MC55
5	PRESSURE INDEPENDENT BALANCING & CONTROL VALVES, Thread END WITH SELF-		TA-FUSION-P	800 kPa = 8 bar	65-80 Flanged End		TA-MC100FSE/FSR
	SEALING MEASURING POINTS			(ΔHmax)	100-150 Flanged End	PN16 /PN25	TA-Slider 750 TA-MC100 TA-MC100FSE/FSR





т	A HYDRONICS						ATC Saudi Co.	
NO.	DESCRIPTION		MODEL	Max. (ΔpVmax), KPA	SIZE (MM)	PN RATING	Actuator	
6	PRESSURE INDEPENDENT BALANCING & CONTROL VALVES, MALE THREAD END, WITH EQM CHARACTERISTICS		KTCM 512 LF	800 kPa = 8 bar (ΔHmax)	15-20	PN25	TA-Slider 160, EMO TM	
7	PRESSURE INDEPENDENT BALANCING & CONTROL VALVES, Flanged END, WITH EQM CHARACTERISTICS		KTM 512	1600 kPa = 16 bar (ΔHmax)	15-50 Thread End 65-125 Flanged End	PN25	TA-Slider 750	
8	ACTUATORS HIGH PERFORMANCE THERMOELECTRIC ACTUATOR	TE CO	EMO		15-32			
9	Digitally configurable proportional		TA-Slider 160		15-32 mm		Input signal: 0(2)-10 VDC	
9	push actuator – 160/200 N	all the	TA-Slider 500		40-50 mm			
10	Digitally configurable proportional push-pull actuator – 750 N		TA-Slider 750 32-150 mm		32-150mm		Input signal: Modulating 0(2)-10 VDC, 0(4)- 20 mA, 3-point, or on-off	





т	A HYDRONICS						ATC Saudi Co.
NO.	DESCRIPTION		MODEL	Max. (ΔpVmax), KPA	SIZE (MM)	PN RATING	Actuator
11	Double Regulating Valve, threaded, AMETAL,		STAD	AMETAL	Thread 15-50mm	PN25	
12	Double Regulating Valve, cast iron, PN16,		STAF	Cast Iron	Flanged 65-150mm	PN16	
12	Double Regulating Valve, Last 11011, FN10,		STAF-SG	ductile iron,	Flanged 200-400mm	PN16	
13	Double Regulating Valve, Flanged ends in accordance Class 150 ASME/ANSI,	() ()	STAF-SG	ductile iron,	Flanged 25-400mm	PN25	
14	Double Regulating Valve, Flanged ends in accordance Class 150 ASME/ANSI,		STAG	ductile iron,	Grooved 65-300mm	Class 150	
15	Automatic Flow Control Valve, threaded, brass, PN25 Rating: 400 psig at 250° F (25 bar at 120° C)		YR	DZR	Thread 15-50mm	PN25	





т	A HYDRONICS						ATC Saudi Co.
NO.	DESCRIPTION		MODEL Max. (ΔpVmax), KPA		SIZE (MM)	PN RATING	Actuator
16	Automatic Flow Control Valve, Wafer-Style, Fabricated Steel, 600 psig at 250° F (40 bar at 120° C)		WS	Fabricated Steel	Wafer 65-350mm	40 bar at 120° C	
10	Automatic Flow Control Valve, Wafer-Style, Fabricated Steel, 225 psig at 250° F (15 bar at 120° C)	3	ws	Fabricated Steel	Wafer 400-750mm	15 bar at 120° C	
17	Gate Valve, threaded, AMETAL, PN16, PN25		TA 60,	AMETAL	Thread 15-50mm	PN16, PN25	
	Cata Valua dustila iran DN1C DN25			ductile iron,	Flanged 65-600mm	PN16	
18	Gate Valve, ductile iron, PN16, PN25 Flanged: According to EN BS or		TA-GAV	ductile iron,	Flanged 65-300mm	PN25	
	ASME/ANSI,			ductile iron,	Grooved 65-300mm	PN16	
19	Ball Valve, threaded, DZR, PN40,		TA-BAV,	DZR	Thread 15-50mm	PN25-40	
				Cast Iron	fully lugged Flanged 65-600mm	PN16	
20	Butterfly Valve, , Leaver (65-150mm) gear box (from size 200mm and above)		TA-BTV	ductile iron,	fully lugged Flanged 65-600mm	PN25	
				Cast Iron	Grooved 65-300mm	PN16	





TA HYDRONICS ΡN NO. DESCRIPTION MODEL Max. (ApVmax), KPA SIZE (MM) Actuator RATING Non Return Valve swing / PTFE, DZR, Thread 21 PN25, Female Threads NPT according to TA-NRV DZR PN25 -----15-50mm ANSI/ASME Non Return Valve, ductile iron, PN25, Wafer 22 PN25 TA-NRV ductile iron. -----Wafer, 65-600mm Flanged Cast Iron PN16 -----65-600mm Flanged 23 Non Return Valve swing type, TA-NRV ductile iron, PN25 -----65-300mm Grooved PN16 Cast Iron -----65-300mm Thread 24 Y pattern Strainer, threaded, brass, PN25 TA-STR DZR PN25 -----15-50mm Flanged Cast Iron PN16 -----65-600mm Flanged 25 Y pattern Strainer TA-STR F ductile iron, PN25 -----65-600mm Grooved ductile iron, PN16 -----65-300mm



Product Range

Reliable pressurisation and quality water are the basic requirements for a gentle and trouble-free operation of waterborne heating, solar and cooling systems. Our planning and calculation basics support you in choosing the right products, their size and performance.

Statico

- Expansion vessels with fixed air cushion

Compresso

- Pressure maintenance systems with compressors

Transfero T

- Pressure maintenance system with pumps (A Vacuum degassing & water makeup systems may be integrated as an option)

Transfero TV Connectt

- Pressure maintenance system with pumps and integrated cyclonic vacuum degassing (A water makeup system & water treatment may be integrated as an option)

Aquapresso

- Pressure stabilisation for potable water

Pleno

- Pressure-maintaining monitoring device,water make-up with or without pumps

Vento

- Vacuum degassing system, the gases are separated completely from the water (A water makeup system may be integrated as an option)

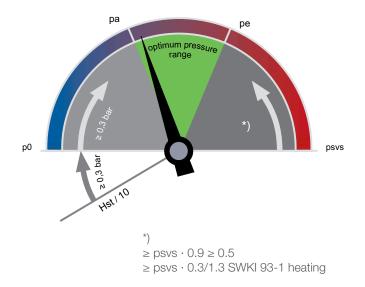
Zeparo

- micro bubble separation or/and sludge&dirt separation

🔁 IMI PNEUMATEX

Precision pressure maintenance

Air controlled Compresso or water controlled Transfero minimize the pressure variations between pa and pe. Compresso \pm 0,1 bar Transfero \pm 0,2 bar



p0 Minimum pressure



Statico p0 is set as pre set pressure on the gas side.

pa Initial pressure



Statico

pa is the cold fill pressure which determines the water reserve: $pa \ge p0 + 0.3 bar$; water make-up «on»: pa - 0.2 bar.



Compresso p0 and the switching points are calculated by the BrainCube.



Transfero p0 and the switching points are calculated by the BrainCube.

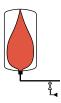


Compresso If the system pressure is < pa, the compressor starts. pa = p0 + 0.3



Transfero If the system pressure is < pa, the pump starts. pa = p0 + 0,3

pe Final pressure



Statico

pe is reached after heating up to ts_{max} . $pe \le psvs - dpsvs_c$ $pe \le psvs/1.3$ (SWKI 93-1 heating)



Compresso If system pressure is > pe the air relief valve opens. pe = pa + 0.2



Transfero If system pressure is > pe, the relief valve opens. pe = pa + 0,4



- addition of antifreeze up to 50%
- CE design-tested according to PED/DEP 97/23/EC
- airproof butyl bag according to EN 13831 and Pneumatex internal standard
- max. adm. temperature TS 120 °C
- max. adm. bag temperature TB 70 °C
- steel | welded | colour: beryllium



Statico SU

Statico SG

Statico SE

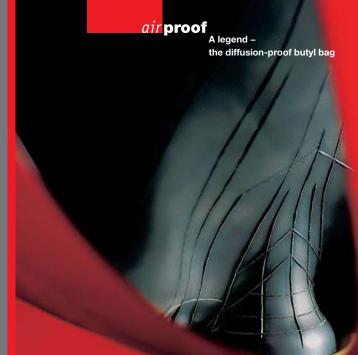
Reliability and quality

The extremely long service life of the Statico vessels is a testament to quality awareness at Pneumatex. Independent tests have irrevocably confirmed this:

Pneumatex airproof butyl bags can take the pressure longer! They are 5 times more leak-tight than the average value determined for conventional products. High costs due to continuous venting, corrosion and even early replacement can thus be avoided. A clear advantage!



You can find additional benefits for a partnership with Pneumatex from page 20 onwards



Equipment

Lock shield valve DLV

Secured lock shield valve with draining for expansion vessels according to EN 12828, DLV 20 up to VN 800 litres, DN 40 for VN 1000 – 5000 litres to be locally supplied.

Expansion pipe

According to table 5.

Pleno

Water make-up as pressure maintenance monitoring device according to EN 12828.

Conditions:

• Pleno Pl without pump: required fresh water pressure: pw \geq p0 + 1,5 | pw \leq 10 bar,

• Pleno Pl 6, Pl 9 with pump: pa Statico within the working pressure range dpu of the Pleno.

Vento

Degassing and central venting.

Conditions:

- pe, pa Statico within the working pressure range dpu of the Vento,
- Vs Vento \geq Vs water capacity of the system.

Zeparo

Air vent Zeparo ZUT, ZUTX or ZUP at each high point for venting during the filling and during the draining process. Separator for dirt and magnetite in each system in the main return to the heat generator. If no central degassing (e.g. Vento or Compresso CPV) is installed a micro bubble separator can be installed in the main flow if possible before the circulation pump.

The static height, Hst_m , according to the following table above the micro bubble separators, must not be exceeded.

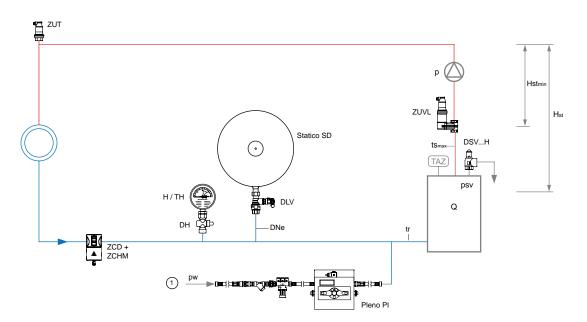
ts _{max} °C	90	80	70	60	50	40	30	20	10
Hst _m m	15,0	13,4	11,7	10,0	8,4	6,7	5,0	3,3	1,7

Further accessories, product and selection details:

Datasheets Pleno, Vento, Zeparo and Accessories.

Application examples

Statico SD



1. Water make-up connection

Pleno Pl water make-up as pressure maintenance monitoring device according to EN 12828.
Zeparo ZUVL for the central separation of micro bubbles.
Zeparo Zyclone ZCD with ZCHM for the central separation of sludge, with magnetic action.
Zeparo ZUT for automatic venting during filling and during draining.
Further accessories, product and selection details:
Datasheets Pleno, Zeparo and Accessories.

Transfero vessels

- addition of antifreeze up to 50%
- bag can be vented at the top, condensate drain at the bottom
- CE design-tested according to PED/DEP 97/23/EC
- airproof butyl bag according to EN 13831 and Pneumatex internal standard
- max. adm. temperature TS 120 °C
- max. adm. bag temperature TB 70 °C
- steel | welded | colour: beryllium



Transfero T | TP | TV | TPV **new:** Transfero TPV...P

Transfero primary vessel with measuring foot • including assembly kit for the water-side connection with 2 bar safety valve* and ball valve for fast draining * with TI at the TecBox

Transfero secondary vessel

 including flexible hose for the water-side connection and lock shield valve with ball valve for fast draining



Transfero TI

Focussed and future-orientated

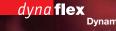
Sustainable benefit for the customers is always the central issue at Pneumatex.

When looking for new, even more efficient solutions we also maintain close contact with well-known research institutes. Our wide range of experience means that we can develop new solutions on a triedand-tested basis, and the oxystop degassing in Transfero TV is no exception. The basic principle was the proven realisation that the frequent flushing of unpressurized diaphragm expansion vessels can enrich the oxygen content. We therefore degas separately according to the oxystop principle using a special vessel. The system is perfectly complimented by the dynaflex pump operation. Speed-regulation means that the degassing as well as the start-up and shut-down operation is of an elastic design.

You can find additional benefits for a partnership with Pneumatex from page 20 onwards



Transfero TGIH



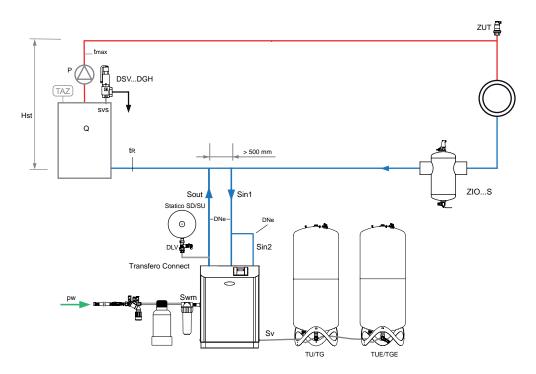
Dynamically like a pump, elastically like a compressor

Transfero TG | TGE Transfero TGI | TGIE

Transfero TU | TUE

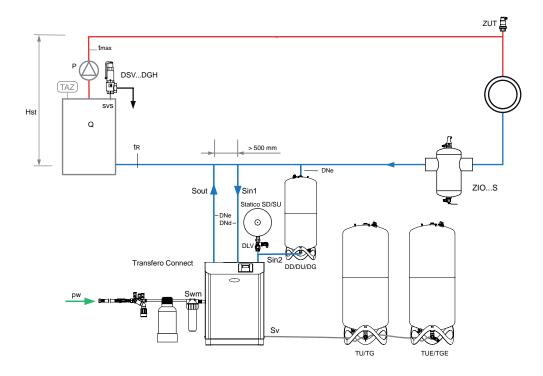
Transfero TV .2 EH Connect

TecBox with 2 pumps, precision pressure maintenance \pm 0,2 bar with cyclonic vacuum degassing, Pleno for the water make-up and Pleno Refill for water treatment.



Transfero TV .2 EH Connect for heating

TecBox with 2 pumps, precision pressure maintenance \pm 0,2 bar with cyclonic vacuum degassing, Pleno for the water make-up and Pleno Refill for water treatment.



Zeparo ZIO...S for the central separation of sludge.
 Zeparo ZUT for automatic venting during filling and during draining.
 Further accessories, product and selection details, see:
 Datasheet *Pleno*, *Zeparo* and *Accessories*.

Transfero Pressure maintenance system with pumps

Quick selection

Heating systems TAZ \leq 110°C, without addition of antifreeze, EN 12828.

For exact calculation please use software HySelect.

		Тес	Box				ТесВох				Primary	y vessel	
		1 pi	ump				2 pumps '	k		Radi	ators	Flat ra	diators
	Τ_	T_	Τ_	T_	T_	Τ_	T_	T_	TPV	90 70	70 50	90 70	70 50
	4.1	6.1	8.1	10.1	4.2	6.2	8.2	10.2	19.2 P				
Q [kW]	S	tatic heig	ht Hst [m]	**		Static	height Hs	st [m] **		No	minal vol	ume VN [li	ter]
≤ 300	28,4	38,2	55,9	75,5	28,4	38,2	55,9	75,5	134,1	200	200	200	200
400	28,4	38,2	55,9	75,5	28,4	38,2	55,9	75,5	134,1	300	300	200	200
500	28,4	38,2	55,9	75,5	28,4	38,2	55,9	75,5	134,1	300	300	200	200
600	28,4	38,2	55,9	75,5	28,4	38,2	55,9	75,5	134,1	400	400	300	300
700	28,4	38,2	55,9	75,5	28,4	38,2	55,9	75,5	134,1	500	500	300	300
800	28,4	38,2	55,9	75,5	28,4	38,2	55,9	75,5	134,1	500	500	400	300
900	28,4	38,2	55,9	75,5	28,4	38,2	55,9	75,5	134,1	600	600	400	400
1000	28,4	38,2	55,9	75,5	28,4	38,2	55,9	75,5	134,1	600	600	400	400
1100	28,4	38,2	55,9	75,5	28,4	38,2	55,9	75,5	134,1	800	800	500	400
1200	28,4	38,2	55,9	75,5	28,4	38,2	55,9	75,5	134,1	800	800	500	500
1300	28,4	38,2	55,9	75,5	28,4	38,2	55,9	75,5	134,1	800	800	500	500
1400	28,4	38,2	55,9	74,7	28,4	38,2	55,9	75,5	134,1	1000	1000	600	500
1500	28,4	38,2	55,7	73,8	28,4	38,2	55,9	75,5	134,1	1000	1000	600	600
2000	28,4	38,2	51,2	68,6	28,4	38,2	55,9	75,5	134,1	1500	1500	800	600
2500	24,9	35,9	46,0	62,5	28,4	38,2	55,9	75,5	134,1	1500	1500	1000	1000
3000	20,6	31,4	40,0	55,6	28,4	38,2	55,6	73,6	134,1	2000	2000	1500	1500
3500	15,7	26,2	33,3	47,8	28,4	38,2	53,5	71,2	134,1	3000	3000	1500	1500
4000	10,2	20,2	25,8	39,1	28,4	38,2	51,2	68,5	134,1	3000	3000	2000	1500
4500		13,3	17,6	29,5	26,8	37,9	48,6	65,6	134,1	3000	3000	2000	2000
5000				19,0	24,9	35,9	45,9	62,5	134,1	3000	3000	2000	2000
5500					22,9	33,8	43,0	59,2	133,5	4000	4000	3000	2000
6000					20,6	31,4	39,9	55,8	124,4	4000	4000	3000	3000
6500					18,3	28,9	36,6	52,1	114,6	4000	4000	3000	3000
7000					15,7	26,2	33,1	48,2	104,1	5000	5000	3000	3000
8000					10,2	20,2	25,6	39,8	80,8	5000	5000	4000	3000
9000						13,6	17,3	30,7				4000	4000
10000								20,7				4000	4000

*) 50% output per pump, full redundancy in the framed area.

Example

Q = 1300 kW Flat radiators 90 | 70 °C TAZ = 105 °C Hst = 30 m psv = 5 bar

Selected: TexBox TPV 6.1 Primary vessel TU 500

Setting of BrainCube: Hst = 30 m TAZ = 105 °C **) The value decreases with
TAZ = 105 °C by 2 m
TAZ = 110 °C by 4 m

Check psv: for TAZ = 105 °C psv: 30/10 + 1,7 = 4,7 < 5 o.k.

Check Hst: for TAZ = 105 °C Hst: 38,2 - 2 = 36,2 > 30

Technical data: Datasheet Transfero

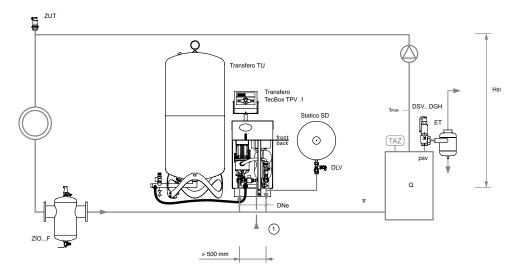
Transfero= TecBox + Primary vessel + Secondary vessel (optional)

Secondary vessel. The nominal volume can be allocated to multiple vessels of the same size.

Application examples

Transfero TPV .1

TecBox with 1 pump, precision pressure maintenance \pm 0,2 bar with degassing and water make-up



1. Water make-up connection, pw = min 2 bar, max. 10 bar

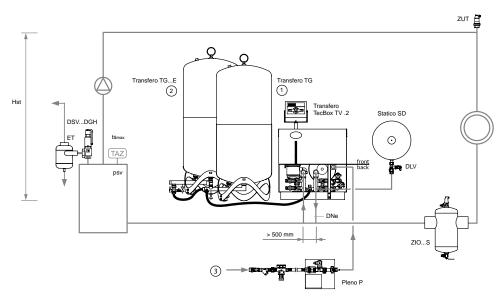
Zeparo ZIO...F for the central separation of sludge.

Zeparo ZUT for automatic venting during filling and during draining.

Further accessories, product and selection details, see: Datasheets Zeparo ZU, Zeparo ZI/ZE and Accessories.

Transfero TV .2

TecBox with 2 pumps, precision pressure maintenance \pm 0,2 bar with degassing and Pleno P for the water make-up



1. Primary vessel

2. Secondary vessel

3. Water make-up connection, $pw \ge p0 + 1.9$ bar (max. 10 bar)

Zeparo ZIO...S for the central separation of sludge.

Zeparo ZUT for automatic venting during filling and during draining.

Further accessories, product and selection details, see: Datasheet Pleno, Zeparo ZU, Zeparo ZI/ZE and Accessories.

Compresso vessels

- addition of antifreeze up to 50%
- bag can be vented at the top, condensate drain at the bottom
- CE design-tested according to PED/DEP 97/23/EC
- airproof butyl bag according to EN 13831 and Pneumatex internal standard
- max. adm. temperature TS 120 °C
- \bullet max. adm. bag temperature TB 70 $^{\circ}\mathrm{C}$
- steel | welded | colour: beryllium



Compresso C 20

Compresso C 10 | CPV





Tradition and innovation

The philosophy – take a good thing and make it even better – is constantly followed at Pneumatex.

However, although we are pioneers in the area of completely closed systems, we are also followers of tradition. Thus the uncompromising quality of our diffusion-proof airproof butyl bags is also given the highest priority in the latest Compresso generation.

When combined with our innovative, self-optimising BrainCube control and silentrun construction, the legendary Pneumatex automatic systems are, however, completely redefined. Here, the future has already started.

You can find additional benefits for a partnership with Pneumatex from page 20 onwards

Compresso primary vessel with measuring foot

including flex tube for the water-side connection and
 lock shield valve with ball valve for fast draining

Compresso secondary vessel

 including assembly kit for the air-side connection of the vessels and lock shield valve for the water-side connection with ball valve for fast draining



Compresso CG | CGE

Equipment

Expansion pipes

According to table 5. With multiple vessels to be calculated depending on the output per vessel.

Lock shield valve DLV

Included in the scope of delivery.

Zeparo

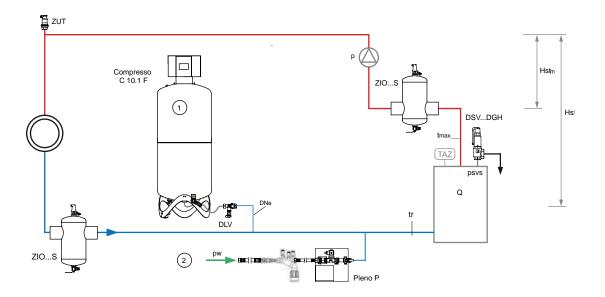
Air vent Zeparo ZUT, ZUTX or ZUP at each high point for venting during the filling and during the draining process. Separator for dirt and magnetite in each system in the main return to the heat generator. If no central degassing (e.g. Vento or Compresso CPV) is installed a micro bubble separator can be installed in the main flow if possible before the circulation pump. The static height, Hst_m, according to the following table above the micro bubble separators, must not be exceeded.

ts _{max} °C	90	80	70	60	50	40	30	20	10
Hst _m mWs	15,0	13,4	11,7	10,0	8,4	6,7	5,0	3,3	1,7

Application examples

Compresso C 10.1 F Connect

TecBox with 1 compressor on the primary vessel, precision pressure maintenance ± 0,1 bar with Pleno P water make-up



1. Compresso Primary vessel CU

2. Water make-up connection, $pw \ge p0 + 1,7$ bar (max. 10 bar)

Zeparo ZIO...S configured as micro bubble separator in the flow, as dirt separator in the return.
 Zeparo ZUT for automatic venting during filling and during draining.
 Further accessories, product and selection details, see:
 Datasheet *Pleno, Zeparo* and *Accessories.*

pleno

Pressure-maintaining monitoring device in the sense of EN 12828-4.7.4. The Pleno ensures that the water reserve required for optimum functioning of the expansion vessels is given at all times. If the level drops below the minimum, water is automatically added to the system. The «fillsafe» electronically monitors and controls the water make-up and ensures maximum safety.

Pleno P

- water make-up without pump
- external control from pressure-maintaining or degassing stations
- with contact water meter and a back flow preventer type BA | EN 1717 | DVGW, SVGW, KIWA N.V.,
- BELGAQUA, WRAS and ACS tested
- with integrated wall mounting bracket
- Pleno Pl
- fillsafe water make-up without pump
- pressure-dependent for expansion vessels
- self-optimising BrainCube control
- with contact water meter and a back flow preventer type BA | EN 1717 | DVGW, SVGW, KIWA N.V.,
- BELGAQUA, WRAS and ACS tested
- with integrated wall mounting bracket
- Pleno Pl 9.1
- fillsafe water make-up with 1 pump
- pressure-dependent for expansion vessels and level-dependent for pressure-maintaining stations
- self-optimising BrainCube control
- with contact water meter and a break tank type AB | EN 1717 | SVGW tested
- high quality metal cover
- with integrated wall mounting bracket

Pleno Pl 6.1 | Pl 6.2

- Pl 6.1 fillsafe water make-up with 1 pump | Pl 6.2 fillsafe water make-up with 2 pumps
- pressure-dependent for expansion vessels and level-dependent for pressure-maintaining stations
- self-optimising BrainCube control
- with contact water meter and a break tank type AB | EN 1717 | SVGW tested
- high quality metal cover with handles
- floor standing

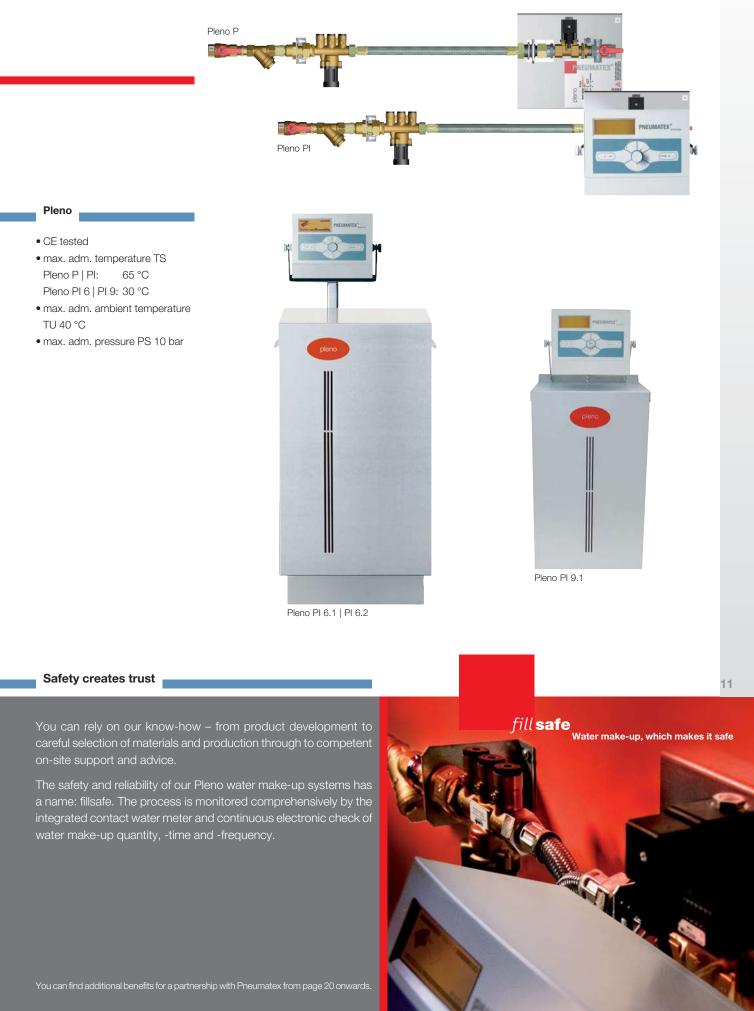
Hygienic



Protection of the drinking water system with back flow preventer or break tank

10





vento

Pressure drop degasser according to the vacusplit principle. Through the atomizing process of the water in a special vacuum vessel, the gases are separated completely from the water. A water makeup system may be integrated as an option. It is used in heating, solar and cooling water systems to facilitate central venting of the system and minimise corrosion.

▶ new: Vento VP...PEC

											nev	v:
	Vento TecBox for heating systems											
		V	VE				VPE			VPPEC		
		3	4	6	8	10	4	6	8	10	13	19
	 vacusplit spray-type degassing 	٠	•	•	•	•	•	•	•	•	•	•
	• eco-interval operation for interval and continuous degassing	٠										
	 gas-content dependent eco-automatic operation 		•	•	•	•	•	•	•	•	•	•
	 fillsafe water make-up monitoring 	٠	•	•	•	•	•	•	•	•	•	•
	• fillsafe water make-up						•	•	•	•	•	•
* with VP 6.2 E VP 10.2 E	 2 pumps*, including a stand-by pump for water make up 							•		•		
	 VA max. water content of the system 100 m³ 	•										
	 VA max. water content of the system 200 m³ 		•	•	•	•	•	•	•	•	•	•

Vento TecBox for cooling water systems – cooling version, insulated and vapor sealed									
	VC	VEC	VPEC	VPPEC					

		3	4	6	8	10	4	6	8	10	13	19
	 vacusplit spray-type degassing 	•	•	•	•	•	•	•	•	•	•	•
	• eco-interval operation for interval and continuous degassing	•										
	 gas-content dependent eco-automatic operation 		•	•	•	•	•	•	•	•	•	•
	 fillsafe water make-up monitoring 	•	•	•	•	•	•	•	•	•	•	•
	• fillsafe water make-up						•	•	•	•	•	•
* with VP 6.2 EC VP 10.2 EC	 2 pumps*, including a stand-by pump for water make up 							•		•		
	 VA max. water content of the system 100 m³ 	•										
	 VA max. water content of the system 200 m³ 		•	•	•	•	•	•	•	•	•	•

Cooling



Water make-up which puts safety first





Vento TecBox

- BrainCube control
- high quality metal cover with handles
- addition of antifreeze up to 50%
- max. adm. temperature TS 70 °C V 3 V 6 TS 90 °C V 8 - V 19
- max. adm. ambient temperature TU 40 °C

• CE tested



Vento V... | V...E | V...C | V...EC | Vento VP...E | VP...EC ▶ new: Vento VP...PEC

Pioneering spirit and technological leadership

A traditional approach at Pneumatex is always to be one step ahead of general developments. Therefore, at the beginning of the nineties, intensive investigations by our engineers of the central venting and degassing of closed water circuits were already underway. The result: Vento, with patented vacusplit technology has paved the way for vacuum degassing in building systems.

You can find additional benefits for a partnership with Pneumatex from page 20 onwards



sludge,

Magnet

ZUM²⁾

Omni + Magnet

 $ZIO^{(3)} + ZIMA$

with magnetic action

Comprehensive range of products for venting and separation of micro bubbles, sludge, oxygen and magnetite in heating, solar and cooling water systems. The diversity of the applications as well as their modular construction is unique. The helistill separator - a brand new development - makes these products incredibly efficient.

micro bubbles,

sludge

Kombi

ZUK

Kombi

ZIK ³⁾

Kombi

ZEK³⁾

micro bubbles,

with magnetic action

Kombi Magnet

Kombi + Magnet

Kombi + Magnet

ZEK³⁾ + ZIMA

ZIK³⁾ + ZIMA

sludge,

ZUKM

>> new: Redox ZUR

DN 20-40
Industrial
DN 50-300
Extended

DN 20-

DN 10

Universal

Separator detachable | DN 50-300

¹⁾ option solar | ²⁾ option vertical installation | ³⁾ with flange connection or welding connection

	Zeparo Low loss header										
	Hydraulic separation, micr	o bubbles, sludge	Hydraulic separation, micro bubbles, sludge, with magnetic action								
Universal	Collect		Collect Magnet								
DN 20-40	ZUC		ZUCM								
	Zeparo Automatic	air vent									
Universal	Тор	Top eXtra	Top Solar	Purge							
DN 10-25	ZUT (DN 15–25)	ZUTX (DN 25)	ZUTS (DN 15)	ZUP (DN 10)							

Zeparo Accessories

Zeparo Separator micro bubbles sludge

Dirt

ZUD²⁾

Omni

ZIO 3)

Vent

Omni

ZIO ³⁾

ZUV 1) 2)

Redox anode ZPR

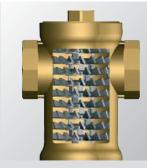
- for connecting a vent pipe
- Magnet Attachment ZIMA Thermal insulation ZHI



Dry

• to be replaced for Zeparo ZUR

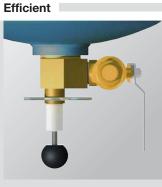
• for Zeparo ZI and ZE | T-branch with magnetic rod and pocket to increase the magnetite capture • for Zeparo ZI | rockwool | 2 part galvanized steel cladding | easy to fit with toggle clamps



Innovative

The innovative separating principle





new:

sludge,

Redox

ZUR 25

micro bubbles,

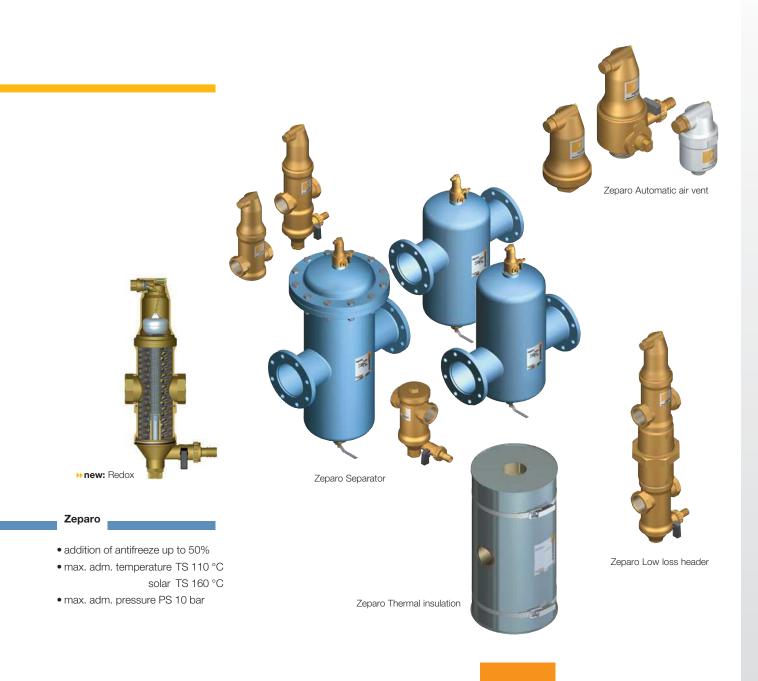
with magnetic action. with oxygen reduction

For more efficient magnetite separation



Dry automatic air vent

leak **free**



Versatile and efficient

Pneumatex engineers for separation of micro bubbles, sludge and magnetite, is unique.

modules with a diverse range of intelligent function solutions. The helistill separator, the core of all separators, is the optimised result of numerous trials. And the result is convincing: The degrees of standards. The sludge separation performance of the magnet-based



Range

The entire Zeparo family is multifaceted and ranges from the ZI (Zeparo Industrial) and ZE (Zeparo Extended) product groups, specially developed for large-scale applications, to separators for smaller pipe diameters **>>** Brochure Zeparo ZU.



The smart, universal solution for the separation of micro bubbles and sludge.

- Nominal diameter: DN 50 DN 300
- Max. adm. pressure PS: 10 bar
- Max. adm. temperature TS: 110°C
- With flange or welding end
- leakfree Zeparo ZUTX automatic air vent
- Optional: ZIMA magnet attachment
 ZHI thermal insulation for Zeparo ZI
- As defined in Pressure Equipment Directive PED/DEP 97/23/EC
- Customer specific solutions on request

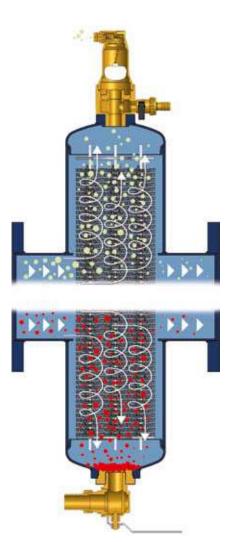
Zeparo Industrial (ZI)

Zeparo ZI separators provide the right solution for all requirements: used for the separation of air and/or sludge , depending on model and assembly position.

ZIO: The Zeparo Industrial Omni is unique in that the same separator can be used either for air separation or sludge separation as required, simply by installing it upside down.

ZIK: The Zeparo Industrial Kombi is a cleverly combined solution, which allows the simultaneous separation of air and dirt in one separator.





Principle of *helistill* micro bubble or dirt separation

Micro bubble or dirt separation only (ZIO) or both simultaneously (ZIK, ZEK) with the helistill separator in Zeparo.

zeparo

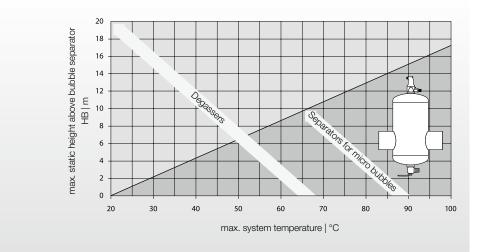
WATER QUALITY

Air Various factors affect the absorption of 'air' (gases) into the system water, for example air could be absorbed directly after the installation is filled, or during water make-up, or by diffusion through non-airtight materials in the system. Gases can also be released as bubbles due to pressure and temperature changes in the installation. The bubbles are carried along with the water when it is circulating around the installation. This is when the *helis*till principle developed by Pneumatex goes to work: gas and micro bubbles are separated from the water in the helistill separator. The baffle plates in the *helis*till separator act as 'docking' surfaces. In the still zone, the bubbles are allowed to rise to the top, and can thus be expelled automatically from the system.

Sludge

Sludge and corrosion particles cause damage to the pumps, valves and heat generators in hot water and chilled water systems. As sedimentation (settling) increases, heat transfer deteriorates until it becomes impossible. For example, heat exchangers with their narrow flow channels are particularly at risk. Once they are clogged up, non-demountable heat exchangers will bring system operation to a halt.

The Zeparo dirt separator catches these particles and separates them out of the water circuit using the *heli*still principle. Zeparo dirt separators can catch and separate even the tiniest particles $(5 - 10\mu m)$, which often cause the most serious problems! The optional multiphase dry magnetic rod at the centre of the separator boosts the retention of magnetite.



Use of separators and pressure step degassers ►

Separators for micro bubbles are only fully functional in the lower area of the graph. M Technical Guide Air 03

Zeparo separators for air are suitable for the separation of micro bubbles. Pneumatex pressure step degassers also separate the dissolved gases. M Brochure Vento

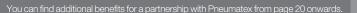




Quality down to the last detail

From the safety valve to the pressure gauge through to the intermediate vessel – the Pneumatex product line is complemented by a wide range of customer-friendly accessories. This is one-stop system technology.

Choose Pneumatex quality – also when it comes to the accessories









PROMAT Product Range

Promat Middle East is a subsidiary of Etex Building Performance a Division of the Etex Group a Belgian industrial group which provides a broad and comprehensive range of passive fire protection and insulation solutions within various application for the construction industry - buildings, infrastructure and tunnels, as well as industrial and oil and gas.



Promat



Product Range

#	Name	Description	Application	Certification	Image
1	Promat PROMASEAL [®] Intumescent Acrylic Sealant	acrylic based sealant used to reinstate the fire resistance performance wall and floor constructions where they have been provided with apertures for the penetrations of multiple services, also to form linear gap seals where gaps are present within the wall and floor constructions and linear joints where wall and floor constructions abut.	Joints Electrical Cables Steel/Copper Pipes Cable trays & Ladders	Certifier Approval Tested up to 240min	
2	Promat PROMASEAL® Silicone sealant	silicone-based fire protection sealant. Adhesion is excellent to most types of surface. The sealants cure in air to form a non-hardening, tack-free seal, preventing the passage of smoke, toxic gases and fire.	Joints Electrical Cables Steel/Copper Pipes Cable trays & Ladders	Certifier Approval Tested up to 240min BS 476: Part20: 1987	
3	Promat PROMASEAL® Pipewrap	water resistant sleeve around a flexible intumescent core. Each wrap is 60mm wide. standard sizes are as follows: 55mm (all pipes up to 55mm internal diameter) 82mm (all pipes up to 82mm internal diameter) 110mm (all pipes up to 110mm internal diameter) 160mm (all pipes up to 160mm internal diameter)	Electrical Cables Platic Pipes	Certifier Approval Tested up to 240min BS 476: Part20: 1987	
4	Promat PROMASEAL® UniCollar®	patented method of protecting plastic pipes which pass through fire rated walls and floors. The system is supplied in a boxed continuous strip, 2190mm long, which is simply cut to length on site, and attached to the wall or floor using clips (supplied), and suitable screws, bolts and anchors, as necessary. Pipe Range: 43-200mm	Plastic Pipes	EXOVA Assesment Tested up to 240min BS 476: Part20: 1987	



Promat



Product Range

#	Name	Description	Application	Certification	Image
5	Promat PROMASEAL [®] Fire compound (Mortar)	white powder, which is mixed with water to the required consistency for installation. When set, it becomes a hard material with a white matt finish. The actual surface finish of the set product is dependent upon treatment at the time of application.	Electrical Cables Cable trays & Ladders Steel/Copper Pipes Plastic Pipes	Certifier Approval Tested up to 240min BS 476: Part20: 1987	
6	Promat PROMASEAL® Fire Barrier	slabs of high density mineral wool with a white endothermic, ablative coating.	Electrical Cables Cable trays & Ladders Steel/Copper Pipes Plastic Pipes	Certifier Approval Tested up to 240min BS 476: Part20: 1987	
7	Promat PROMASEAL® Expansion Joint Strip	highly compressible, flexible, fire resistant seals which are used where movement joints are formed in the structure of a building. It consist of layers of intumescent material bonded to Class 0 foam.	Joints	Certifier Approval Tested up to 120min BS 476: Part20: 1987	FR
8	Promat PROMASEAL® Fire Pillows	used to maintain the fire resistance of walls and floors where openings for services are located. They are typically installed around cables which need to be regularly altered. 330mm x 200mm x 45mm (large fire pillow) 330mm x 200mm x 25mm (small fire pillow) 330mm x 50mm x 20mm (finger pillow)	Electrical Cables Cable trays & Ladders Steel/Copper Pipes Plastic Pipes	Certifier Approval Tested up to 120min BS 476: Part20: 1987	Promat





ELDON PRODUCTS RANGE

A comprehensive ranges of industrial enclosures and accessories for Automation and Control applications, Heating Ventilation and Air-conditioning (HVAC) and Power and Distribution systems.

enclosures in mild steel, stainless steel, aluminum and plastic to meet most requirements



Enclosure Solutions for every need

We offer one of the most comprehensive ranges of industrial enclosures and accessories for Automation and Control applications, Heating Ventilation and Airconditioning (HVAC) and Power and Distribution systems. We have enclosures in mild steel, stainless steel, aluminum and plastic to meet most requirements.



ELDON Enclosures in KSA.

Eldon is an international manufacturer offering industrial enclosures and accessories since 1922. Eldon comprehensive range of standard enclosures are user-friendly and suitable for many applications and environments, no matter how harsh or clinically clean. With state-of-the-art manufacturing facilities, all Eldon's mild steel and stainless steel enclosures are made according to ISO 9001:2008 standard and certified to meet the international standards for a broad spectrum of power distribution and control applications to different industries. With more than 90 years in business, Eldon is a trusted name around the globe to provide standard as well as customised enclosure solutions for various application requirements. www.eldon.com

SEC Vendor No (2005985); SABIC Vendor No (206137); Aramco Vendor No (6000002698).







ELDON Wall Mounted Enclosures

NO.	Description	ТҮРЕ	SIZE	IP	РНОТО
1	MAS Mild steel, single door enclosure	MAS0202015R5	200x200x155mm to 1200x800x400mm	IP 66 / NEMA 4, 12, 13 / IK 10	
2	MAD Mild steel, double door enclosure	MAD0608030R5	600x800x300mm to 1400x1000x300mm	IP 55 / NEMA 12, 13 / IK 10	a
3	ASR, ADR, AFS Stainless steel, single door & double door enclosure	ASR0182415 ADR1001030 AFS03021	180x240x150mm to 1000x1200x300mm and SPECIAL SIZES	IP 66 / NEMA 4X, 12, 13 / IK 10 IP 55 / NEMA 12, 13 / IK 10	Saud Por





ELDON Floor Standing Enclosures

NO.	Description	ТҮРЕ	SIZE	IP	РНОТО
1	MCS & MCD Mild steel combinable version, single & Double door enclosure	MCS18055R5 MCD18085R5	1800x500x500mm to 2200x1200x600mm	IP 56 / NEMA 4, 12, 13 / IK 10 IP 55 / NEMA 12, 13 / IK 10	
2	MKS & MKD Mild steel semi- compact version, single & Double door	MKS16064R5 MKD20165R5	1600x600x400mm to 2000x1600x500mm	IP 66 / NEMA 4, 12, 13 / IK 10 IP 55 / NEMA 12, 13 / IK 10	
3	Stainless steel Enclosure, Combinable & Compact version, Single & Double door	MCSS MCDS EKSS EKDS	1800x600x500mm to 2000x1200x600mm and SPECIAL SIZES	IP 66 / NEMA 4x, 12, 13 / IK 10 IP 55 / TYPE 12, 13 / IK 10; IP 66 / TYPE 4X (on request)	



Section '

Project References



Headquarters Business Park, Jeddah



Developer: Adeem Al Wataniya Consultant: CES Energy MEP Contractor: Al Aman Contracting IMI HE Scope: VODRV, pressurization units

Jabbal Omar Development Project, Makkah



OWNER: JODC (Jabbal Omar Development Company) Owner Representative: Hill International JODP/Phase-1: Contractor: Nesma & Partners : Consultant: Khatib & Alami IMI HE Scope: STAD/F, TA-Scope, TA-SC, TA60 JODP/Phase-2:Contractor: DS I: Consultant: Khatib & Alami IMI HE Scope: STAD/F, TA-Scope, TA-SC, TA60 JODP/Phase-3:Contractor: Baytur : Consultant: Dar Al Arabia IMI HE Scope :STAD/F, TA-Scope, TA-SC, TA60, FUSION P, TBV-CMP JODP/Phase-4: Contractor: Al Futtaim: Consultant : Ehaf



SABB HQ – Riyadh KSA



Developer: SABB Consultant: Arcadis MEP Contractor: Saudi Technical IMI HE Scope: PICV, VODRV, TA-SC

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Shangri-La Hotel – Jeddah KSA



Developer: Asala Investment Designer: Perkins MEP Contractor: Al Jamed IMI HE Scope: VODRV, TA-SC, TA60



Ritz Carlton– Riyadh KSA

Kempinski Hotel – Riyadh KSA



Consultant: Dar Engineering MEP Contractor: Saudi Oger IMI HE Scope: DPCV, VODRV



Developer: Rafal Holding Consultant: Erga MEP Contractor: Al Bonian Contracting Contracting IMI HE Scope: Pneumatex, VODRV, TA-SC



Rafal Living – Riyadh KSA

Riyadh Park Mall – Riyadh KSA





Developer: Rafal Holding Consultant: Erga MEP Contractor: Sterling & Welson IMI HE Scope: PIBCV, VODRV, TA-SC OWNER: Asala Holding Consultant: Projacs MEP Contractor: Al Aman Contracting IMI HE Scope: PIBCV, VODRV, TA-SC



AL Rajehi HQ -Riyadh, KSA

Haramrain High Speed Rail, Jeddah, Madinah, Makkah Station



Developer: Client: Al Rajhi Bank & Investment Corporation Contractor: Samsung – ACC – Anel Ksa Consultant: Hyder IMI HE Scope: VODRC, PIBCV, Complementary range, Pressurization equipment

Developer: Ministry of Transport **Contractor:** Saudi Oger, CCC, El Seif, etc.. **Consultant:** Dar Al Handasah **IMI HE Scope:** Pressurization units



Dr. Sulaiman Al Habib Hospital – Riyadh, KSA

Dr. Mohamad Al Faqih Hospital, Riyadh, KSA





Developer: Dr. Sulaiman Al Habib Contractor: A.S AL SAYED Consultant: Sulaiman Al Habib IMI HE Scope: VODRC, PIBCV, Complementary range, Pressurization equipment Developer: Dr. Moh'd Al Faqih Contractor: Al Hashem Contracting Consultant: Moh'd Al Faqih IMI HE Scope: PIBCV



Al Hugayat Tower, Khobar

Al Mouwasat Hospital – **Extension**, Dammam





Developer: Mouwasat **Consultant:** Afniyah MEP Contractors: Project Build Co IMI HE SCOPE: PIBCV, DRV, TA-SC, Dirt & Air Separators **IMI HE Solution:** Hydronic Calculation

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O&M & RC FACILITIES, Ras Al-Khair Industrial City

Developer: Royal Commission Consultant: Al Joaib MEP Contractor: Othman Saleh Al Ghamdi / Al Habshi Contracting IME HE Scope: PIBCV, DRV, TA-SC

Dammam Port

Consultant: Gulf Gain DMCC MEP Contractor: Sharqawi IME HE Scope: DRV, TA-SC

Siemens Factory

Consultant: CPSC MEP Contractor: Afifi Contracting IME HE Scope: DRV, TA-SC

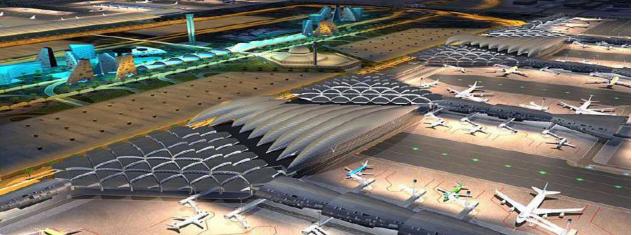
KACWC - World Culture Center, Dhahran



Developer: Saudi Aramco Consultant: Dar Al Handasah MEP Contractor: Saudi Oger IME HE Scope: FDI, Pneumatex IMI HE Solution: Hydronic Study & value engineering



King Khaled Int. Airport Extension T2,T3, T4 Riyadh



Developer: GACA Consultants: AECOM MEP Contractor: SONMOZ IMI HE SCOPE: STAD/F, PIBCV IMI HE Solution: Hydronic Calculation

Movenpick Hotel, Riyadh



Dellah Hospital, Namar Riyadh

Developer: Dallah Consultants: ZAK MEP Contractor: AI Hashem Contracting IMI HE SCOPE: STAD/F, PIBCV, Penumatex IMI HE Solution: Hydronic Calculation



RAMLA Tower- Riyadh, KSA



Developer: Ramala Real Estate Development **Contractor:** First Contracting Company **Consultant:** Erga **IMI HE Scope:** VODRC, PIBCV, Complementary range,

Line 4 Line 4 Line 2 Line 3 Line 3

Metro Riyadh – Riyadh, KSA

Developer: ADA Contractor: BACS, MOBILITY, FAST Consultant: RMTC, RAMPED IMI HE Scope: Line 3: PICV, VODRV, TA-SC Line 1,2: DPCV Line 4,5,6 : TA-SC, VO'DR



Abraj Al-Bait Towers, Princess Nora bint Abdulrahman University Makkah (PNU), Riyadh





Developer: MOHE Consultant: Dar Al Handasah MEP Contractor: Saudi Oger, El Seif, CCC IMI HE Scope: BCV





	PROJECT NAME	Location	CONTRACTOR	CONSULTANT	Product (Description)
1	Metro Project - Line 1,2	KSA, RIYADH	HAPCO, Jones Engineering, Al Fayhaa	RMTC	DPCV
2	Metro Project - Line 3	KSA, RIYADH	L&T, IKK, Arail, CEM, EMW, Al Hajiri	RMTC	PIBCV, Actuators, Balancing & Isolated Valves
3	Metro Project - Line 4,5,6	KSA, RIYADH	FCC	RMTC	Balancing & Isolated Valves
4	The Security Forces Medical Center	KSA, RIYADH	MTC	MANES-TIFS	Balancing & Isolated Valves
5	SABB HQ	KSA, RIYADH	SAUDI TECHNICAL GROUP	Arcadis	PIBCV, Actuators, Balancing & Isolated Valves, PU
6	Dallah Hospital	KSA, RIYADH	Jamed	Suleiman Khuraiji Consulting Engineers	PIBCV, Actuators, Balancing & Isolated Valves, PU
7	Movinpek Hotel	KSA, RIYADH	EFCO	Consolidated Consaltant	PIBCV, Actuators, Balancing & Isolated Valves, PU
8	RAFAL LIVING	KSA, RIYADH	STERLING AND WILSON MIDDLE EAST	ERGA SAUDI	PIBCV & Actuators
9	Five Star Hotel	KSA, RIYADH	Specialized Contracting Company	Hykal Omrania	PIBCV, Actuators, Balancing & Isolated Valves
10	Shaza Hotel	KSA, RIYADH	Jamed	Imar Urban consultants	Balancing & Isolated Valves
11	Dr. Mohammad AL Faqih Hospital	KSA, RIYADH	Jamed	Khaled Al Fagih Engineering	PIBCV & Actuators
12	AL Rajhi Bank HQ	KSA, RIYADH	Samsung	Arcadis	PIBCV, Actuators, Balancing & Isolated Valves
13	Clemenceau Medical Center	KSA, RIYADH	Sharqawi	Khatib & Alami	Balancing & Isolated Valves
14	King Khaled International Airport Development and Expansion	KSA, RIYADH	RTCC-ICICTAS JV	AECOM	PIBCV & Actuators
15	Riyadh Park Mall	KSA, RIYADH	Inma Utilites Contacting Co	Projacs	PIBCV, Actuators, Balancing & Isolated Valves
16	Ramla Hotel	KSA, RIYADH	First Saudi Contracting	Projacs	PIBCV, Actuators, Balancing & Isolated Valves
17	Courts	KSA	Hashem Contracting & Trading Corp.	Courts	Balancing & Isolated Valves





	PROJECT NAME	Location	CONTRACTOR	CONSULTANT	Product (Description)
			MUSHARABIA CONTRACTING CO. (M.C.C)		
			SAUDI TECHNICAL GROUP		
18	Prince Noura University (PNU)	KSA, RIYADH	HAMAD AL ALAIWI AND PARTNERS	Dar Al Handash	Control Valves
			FPF		
			Saudi Oger		
19	King Abdullah University for Science & Technology (KAUST)	KSA, RIYADH	Al Salem Air Conditioning Co.	Aramco	Balancing Valves
20	RAFAL TOWER	KSA, RIYADH	JV SAUDI INTELTEC –ALBONIAN INTERNATIONAL	Р&Т	PIBCV & Actuators
21	Mobily Data Center - Melga Riyadh	KSA, RIYADH	MUSHARABIA CONTRACTING CO. (M.C.C)	Al Mutlaq & Bou Nahia	Balancing & Isolated Valves
22	Gossi Olaya Towers	KSA, RIYADH	Nesma & Partners	Zuhair Fayez	Balancing Valves
23	HEALTH AND ENVIRONMENT	KSA, RIYADH	Raghadan	UNITED CONSULTANT	Balancing & Isolated Valves
24	CARDIAC CENTER	KSA, RIYADH	Hamad Al Alaiwi & Partners	SAUDI CONSULANTE	Balancing & Isolated Valves
25	CENTRO ROTANA HOTEL	KSA, RIYADH	EHAF CONSULTING ENGINEERS	EHAF CONSULTING ENGINEERS	Balancing & Isolated Valves
26	Faculty of Medical Sciences	KSA, RIYADH	Abdul Rahman Al-Rashed Contracting Co.	AL SHABANAT ENG. CONSULTANT	Balancing & Isolated Valves
27	Hilton Hotel	KSA, RIYADH	ETA Star Engineering & Cont. Co. LTD	OMRANIA & ASSOCIATES	Balancing & Isolated Valves
28	KFMC - 6 TOWER	KSA, RIYADH	Al Rashid Trading & Contracting Co. LTD	EL SAYEF CONSULTANT	Balancing & Control Valves
29	University Basement Works	KSA, RIYADH	Dar Al Uloom University	Al Mutlaq & Bou Nahia	Balancing Valves
30	Nayfah Compound	KSA, RIYADH	Othman Saleh Al Ghamdi	Khatib & Alami	Balancing & Isolated Valves





	PROJECT NAME	Location	CONTRACTOR	CONSULTANT	Product (Description)
31	AL Issa Endowment Head Quarter	KSA, RIYADH	Arcon	Asila	Balancing & Isolated Valves
32	Al Esayi Plaza Hotel	KSA, JEDDAH	Sharqawi	Projacs	PIBCV & Three Way Control Valve
33	American International School	KSA, JEDDAH	Sharqawi	Zuhair Fayez	Balancing & Isolated Valves
34	Al Bakri Hotel	KSA, JEDDAH	Creet International Contracting Co.	Millennium Plaza (Operator)	PIBCV & Actuators
35	Al Sail Tower	KSA, JEDDAH	Khaled Jaffali	Amias	Balancing & Isolated Valves
36	Saudi Civil Aviation Academy	KSA, JEDDAH	Afras	тутс	Balancing & Isolated Valves
37	Mobily Head Qaurter - Jeddah	KSA, JEDDAH	MOUTAIN TECHNICAL COMPANY	Al Mutlaq & Bou Nahia	Balancing Valves
38	ARAK Hotel	KSA, MAKKAH	IBS	Saudi Diyar	PIBCV & Actuators
39	Abraj El Beit in Makkah	KSA, MAKKAH	Saudi Binladen / Al Salem	Dar Al Handash	Balancing Valves
40	Al Shamia Project	KSA, MAKKAH	Saudi Binladen	Dar Al Handash	Balancing Valves
41	Massa Makkah Extention	KSA, MAKKAH	Al Salem Air Conditioning Co.	Dar Al Handash	Balancing Valves
42	King Abdul Aziz University (KAAU)- Jeddah	KSA, JEDDAH	Al Salem Air Conditioning Co.	Zuhair Fayez	Balancing Valves
43	King Abdul Aziz University (KAAU)- Jeddah	KSA, JEDDAH	Fawaz Air Conditioning	Zuhair Fayez	Balancing Valves
44	Al Thuraya College	KSA, JEDDAH	Specialized Contracting Company	Zuhair Fayez	Balancing Valves
45	White Horse Hotel	KSA, JEDDAH	Specialized Contracting Company	Zuhair Fayez	Balancing Valves
46	Jabbal Omar Development Project	KSA, MAKKAH	Nesma & Partners	Khatib & Alami	Balancing & Isolated Valves
47	Government Complex Project-Phase2	KSA, MAKKAH	AI FOZAN TRADING & GENERAL CONTRACTING	AI ETKAN CONSULTANTS	PIBCV & Actuators





	PROJECT NAME	Location	CONTRACTOR	CONSULTANT	Product (Description)
48	Jabal Omer Development PH-III	KSA, MAKKAH	Drake & Scull International LLS Saudi Arabia	KHATIB & ALAMI	Balancing & Isolated Valves
49	Jabal Omer Development PH-III	KSA, MAKKAH	Nesma & Partners	KHATIB & ALAMI	Balancing & Isolated Valves
50	Jabal Omer Development PH-III	KSA, MAKKAH	Dar Al Arabia	Dar Al Riyadh	Isolated Valves
51	Shamiyah	KSA, MAKKAH	Inma Utilites Contacting Co	Dar Al Handash	Balancing & Control Valves
52	Saudi Aircrafts Maintenance Hangars	KSA, JEDDAH	TAV-Habtour- Al Rajhi	Dar Al Handash	Balancing Valves
53	Jeddah Gate Project	KSA, JEDDAH	Sayyar Al Husseini	Zuhair Fayez	Balancing & Isolated Valves
54	Marriot Hotel Jeddah	KSA, JEDDAH	SCC	Hokair	Balancing & Isolated Valves
55	KAAU	KSA, JEDDAH	Al Arrab	Innovative	PIBCV, Balancing & Isolated Valves
56	The Sail Tower	KSA, JEDDAH	Al Saad - Khaled Jaffali	AMIAS	Isolated Valves
57	American International School	KSA, JEDDAH	Sharqawi	Zuhair Fayez	Balancing & Isolated Valves
58	МОІ	KSA, JEDDAH	El Seif	Archen	Pressurization Unit
59	El Essayi project	KSA, JEDDAH	Sharqawi	Projacs	PIBCV
60	King Abullah Foundation	KSA, JEDDAH	SBG	Saudi Diyar	PIBCV
61	Thakher City Development Project	KSA, MAKKAH	Al Arrif	Khatib and Alami	PIBCV
62	SARED - KAIA	KSA, JEDDAH	AI MABANI	Zuhair Fayez	PIBCV
63	Hilton Garden	KSA, JEDDAH	Hamdan Studios - UCCL	Khatib Alami	PIBCV, Balancing & Isolated Valves
64	JODP (Jabal Omar Development Project)	KSA, MAKKAH	Baytur	Dar Al Arabia	PIBCV





	PROJECT NAME	Location	CONTRACTOR	CONSULTANT	Product (Description)
65	ΚΑΙΑ	KSA, JEDDAH	SBG	Dar Al Handash	Balancing valves
66	Mataf Extension	KSA, MAKKAH	SBG	Dar Al Handash	Balancing valves
67	Mataf Extension	KSA, MAKKAH	SBG	Dar Al Handash	ORIFICE PLATE
68	Madina Haj City	KSA, MADINA	AI FOZAN TRADING & GENERAL CONTRACTING	Dar Al Handash	Balancing & Isolated Valves
69	Faculty of Medical Sciences	KSA, MADINA	Abdul Rahman Al-Rashed Contracting Co.	SAUDI CONSULANTE	Balancing & Isolated Valves
70	Tiba University	KSA, MADINA	Awtan International Construction	SAUDI CONSULANTE	Isolated Valves
71	Mobily Data Center - Dammam	ksa, dammam	Saudi Build	Al Mutlaq & Bou Nahia	Balancing & Isolated Valves
72	Mobily Data Center - Onaizah	ksa, dammam	Roubou Al-Assima Est	Al Mutlaq & Bou Nahia	Balancing & Isolated Valves
73	Dammam Port	KSA, DAMMAM	Sharqawi	Gulf Gain DMCC	Balancing & Isolated Valves
74	Al Mouwasat Hospital	KSA, DAMMAM	Project Build Co	Afniah	PIBCV & Actuators
75	Siemens Factory	KSA, DAMMAM	Afifi Contracting	CPSC	Balancing & Isolated Valves
76	Al Hugayat Tower	KSA, KHOBAR	Specialized Energy Work Contracting	AL Hugayat	Balancing & Isolated Valves
77	RIC O&M Departments & Rc Facilities Phase 1	KSA, RAS AL KHAIR	Othman Saleh Al Ghamdi	Al Joaib	Balancing & Isolated Valves
78	RIC O&M Departments & Rc Facilities Phase 2	KSA, RAS AL KHAIR	Al Habshi Contracting	Al Joaib	Balancing & Isolated Valves
79	Arar Medical Tower 300 Beds	KSA, ARAR	ASAS ELECTRO-MECHANICAL CO.	AL MAJAZ CONSULTANCY ENGINEERING.	Balancing & Isolated Valves
80	Rafha Medical Tower 100 Beds	KSA, RAFHA	ASAS ELECTRO-MECHANICAL CO.	AL MAJAZ CONSULTANCY ENGINEERING.	Balancing & Isolated Valves
81	Al Jouf University	KSA, ALJOUF	SARH ATTAQNIA CONST	TYPSA CONSULTING ENGINEERS.	Balancing & Isolated Valves





	PROJECT NAME	Location	CONTRACTOR	CONSULTANT	Product (Description)
82	North Sharma	KSA, SHARMA	Azmeel Contracting	Saudi Diyar	Balancing Valves
83	Tabuk University	KSA, TABOUK	AL HARBI TRADING & CONTRACTING CO. LTD	KHATIB & ALAMI	Balancing & Isolated Valves
84	Tabuk Park Mall	KSA, TABUK	Al Jabr	Afyaa Consulting Engineers	PIBCV, Actuators
85	King Abdullah Economic City	KSA, RABEG	C1 (Concept 1)	V3 consultancy	PIBCV
86	Yanbu Power and Desalination Plant - ph3	KSA, YANBU	Samsung	SWCC	Pressurization Unit
87	Jizan University Hotel	KSA, JIZAN	Abdul Rahman Al-Rashed Contracting Co.	SAUDI CONSULANTE	PIBCV, Balancing & Isolated Valves
88	Al Othaim Mall Hafer Al Batin	KSA, HAFER AL BATIN	НАРСО	Al Othaim	Balancing & Isolated Valves
89	Al Othaim Mall Al KhAFJI	KSA, AL KHAFJI	Gts	Al Othaim	Balancing & Isolated Valves