



DATA CENTRE LIQUID COOLING SOLUTIONS



John M. Ellsworth Co., Inc.

P.O. Box 240072
8700 West Bradley Road
Milwaukee, WI 53224

800-333-3331 **PHONE**

info@jmesales.com **E-MAIL**
www.JMESales.com **WEB**

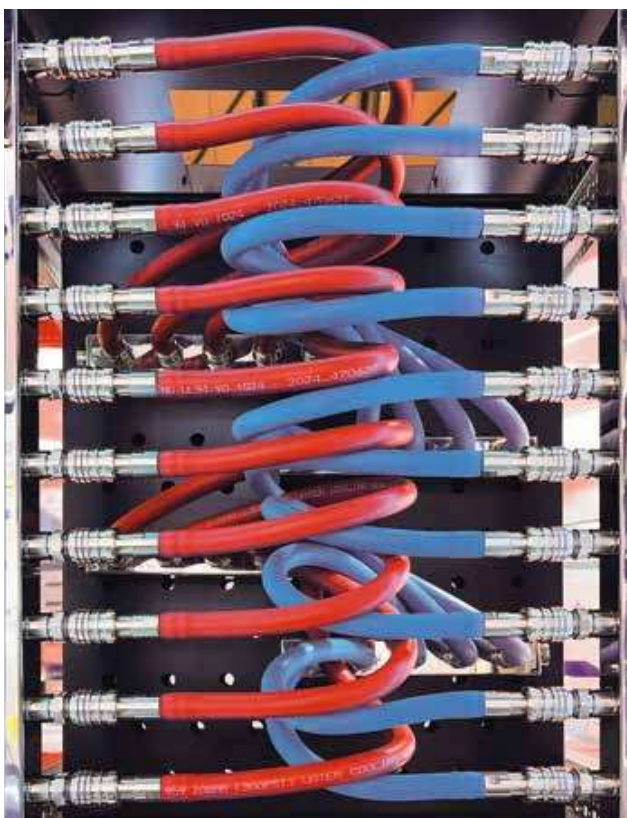
// LIQUID COOLING SOLUTIONS FOR DATA CENTRES

Alfagomma offers a comprehensive range of high-performance products for Direct Liquid Cooling (DLC) application, specifically engineered to meet the demanding requirements of modern data centres.

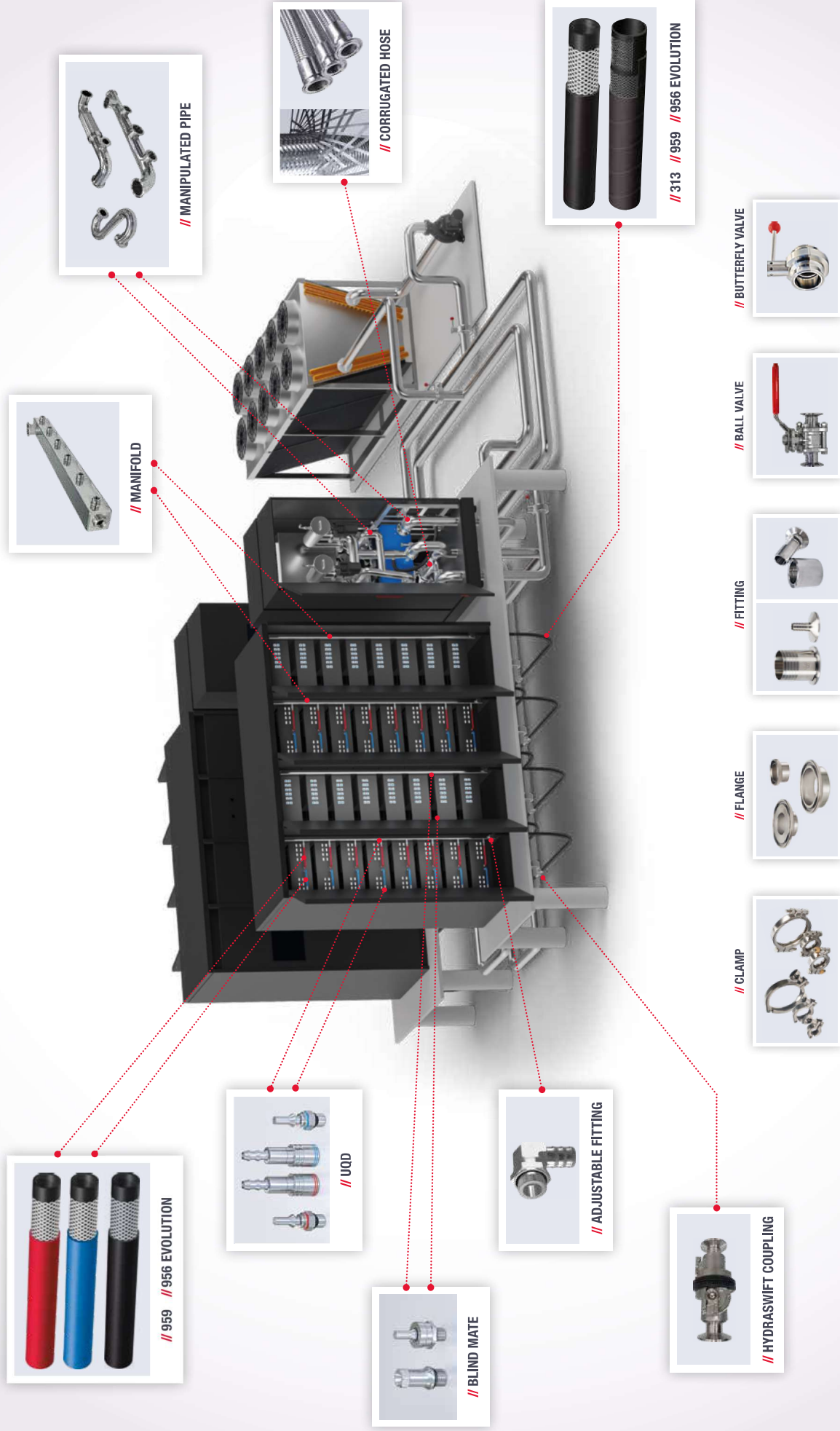
Alfagomma solutions include **rubber hoses and assemblies**, **universal quick disconnect couplings**, **manifolds**, **stainless steel rigid pipes** & **wire braided corrugated flexible hose assemblies**, and **accessories**.

Designed for use in both **primary** and **secondary loop cooling systems**.

As data centres increasingly adopt energy-efficient and sustainable cooling technologies, **Alfagomma's solutions** play a vital role in **maintaining optimal temperatures**, **improving operational stability**, **security** and **reliability** across critical infrastructure.



// DATA CENTRE LIQUID COOLING SOLUTIONS



// EPDM HOSE

Alfagomma **rubber hose** cooling range is designed to **guarantee long service life, high safety,** and **ease of use** in **data center applications.**

EPDM HOSE

FEATURES

- ▲ The TOP series grants:
 - Peroxide cured, Calcium and Zinc free EPDM tube, ensuring high purity of the cooling solutions
 - UL 94 V0 flame resistant cover for maximum reliability
- ▲ The **braided or hard wall constructions** provide **superior kink and tight bend radius resistance** for **easy installation and replacement.**

// 959 EVOLUTION **NEW**

EXTRUDED
TUBE★
TOP

Liquid cooling 16 bar (240 psi) - EPDM

UL 94 V0

Tube: black peroxide cured EPDM, calcium and zinc free.

Reinforcement: high tensile textile braids.

Cover: black/red/blue EPDM - abrasion, ozone and UL94 V0 flame resistant.

ID ≤ 25mm smooth finish, ID > 25mm wrapped.

Application: data center liquid cooling.

Compatible with push-on fittings.

Temperature: -40 °C +120 °C (-40 °F +248 °F)

ID (mm)	ID (in)	OD (mm)	OD (in)	WP (bar)	WP (psi)	BP (bar)	BP (psi)	BR (mm)	BR (in)	Weight (kg/m)	Weight (lb/ft)
5,0	3/16"	11,0	0,43	16	240	64	960	20	0,79	0,100	0,07
6,0	1/4"	13,0	0,51	16	240	64	960	24	0,94	0,140	0,10
10,0	3/8"	17,0	0,67	16	240	64	960	40	1,57	0,250	0,17
13,0	1/2"	22,0	0,87	16	240	64	960	52	2,05	0,320	0,22
16,0	5/8"	25,0	0,98	16	240	64	960	64	2,52	0,390	0,27
19,0	3/4"	29,0	1,14	16	240	64	960	76	2,99	0,500	0,34
25,0	1"	36,0	1,42	16	240	64	960	100	3,94	0,690	0,47
32,0	1 1/4"	45,0	1,77	16	240	64	960	128	5,04	1,020	0,69
38,0	1 1/2"	51,0	2,01	16	240	64	960	152	5,98	1,190	0,80
51,0	2"	65,0	2,56	16	240	64	960	204	8,03	1,670	1,13

// 313AA EVOLUTION **NEW****Liquid cooling 10 bar (150 psi) - EPDM - Hard wall****UL 94 V0**

Tube: black peroxide cured EPDM, calcium and zinc free.

Reinforcement: high tensile textile cords with embedded steel helix wire.

Cover: black EPDM - abrasion, ozone and UL94 V0 flame resistant.

Application: Liquid cooling in applications where tight bend radius is required.

Temperature: -40 °C +120 °C (-40 °F +248 °F)

ID (mm)	ID (in)	OD (mm)	OD (in)	WP (bar)	WP (psi)	BP (bar)	BP (psi)	BR (mm)	BR (in)	Vacuum %	Weight (kg/m)	Weight (lb/ft)
25,0	1"	36,0	1,42	10	150	40	600	50	1,97	100,00	0,780	0,53
32,0	1 1/4"	44,0	1,73	10	150	40	600	64	2,52	100,00	1,010	0,68
38,0	1 1/2"	50,0	1,97	10	150	40	600	76	2,99	100,00	1,180	0,80
51,0	2"	64,0	2,52	10	150	40	600	102	4,02	100,00	1,750	1,18

// 956 EVOLUTION **NEW****General purpose 20 bar (300 psi) - EPDM**

Tube: black conductive EPDM.

Reinforcement: high tensile textile braid up to ID 25mm - ID>25mm spiralled.

Cover: black/red/blue EPDM - abrasion and ozone resistant. ID≤ 25mm smooth finish, ID>25mm wrapped.

Application: air, water and mild chemicals delivery in general industrial applications.

Also suitable for cooling systems.

Temperature: -40 °C +120 °C (-40 °F +248 °F)

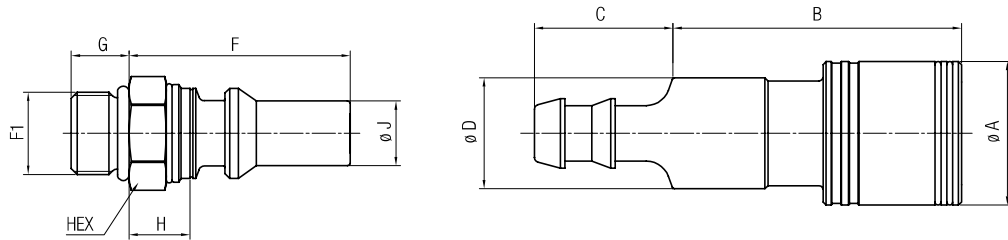
ID (mm)	ID (in)	OD (mm)	OD (in)	WP (bar)	WP (psi)	BP (bar)	BP (psi)	BR (mm)	BR (in)	Weight (kg/m)	Weight (lb/ft)
6,0	1/4"	13,0	0,51	20	300	80	1200	36	1,42	0,120	0,09
8,0	5/16"	15,0	0,59	20	300	80	1200	48	1,89	0,150	0,11
10,0	3/8"	17,0	0,67	20	300	80	1200	60	2,36	0,190	0,13
13,0	1/2"	21,0	0,83	20	300	80	1200	78	3,07	0,270	0,19
16,0	5/8"	25,0	0,98	20	300	80	1200	96	3,78	0,340	0,23
19,0	3/4"	28,0	1,10	20	300	80	1200	114	4,49	0,400	0,27
25,0	1"	35,0	1,38	20	300	80	1200	150	5,91	0,560	0,38
32,0	1 1/4"	44,0	1,73	20	300	60	900	192	7,56	0,760	0,52
38,0	1 1/2"	50,0	1,97	20	300	60	900	228	8,98	0,880	0,60
51,0	2"	64,0	2,52	20	300	60	900	306	12,05	1,230	0,83

// QUICK-CONNECT COUPLINGS

The Alfagomma quick-connect coupling series is an **essential component for liquid cooling systems in data centres**. With a focus on **secure and easy connections, leak-proof design, high flow rates**, and **resistance to mechanical stresses**, it is tailored to meet the rigorous demands of data centre liquid cooling. **UQD blind-mate and adjustable fittings** complete the offering.

FEATURES

- ▲ Stainless steel
- ▲ EPDM seal material
- ▲ 100% helium leak tested
- ▲ Color coding available
- ▲ Sizes: 1/4" to 2"
- ▲ Customisable solutions



UNIVERSAL QUICK DISCONNECT

Male ORB ISO 11926-3



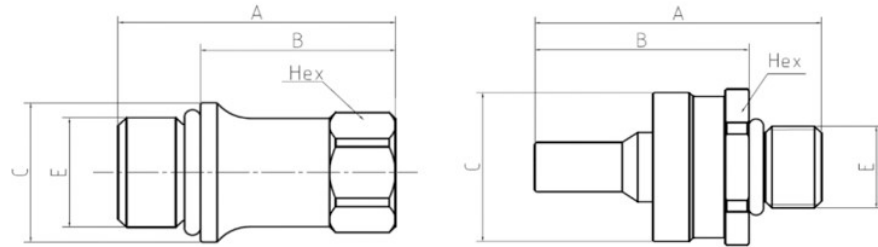
Item	Thread F1 (in)	F (mm)	F (in)	G (mm)	G (in)	H (mm)	H (in)	J (mm)	J (in)	HEX (mm)	HEX (in)
UQD02	7/16-20"	29,2	1,15	9,1	0,36	8,7	0,34	6,65	0,26	14,0	0,55
UQD04	9/16-18"	38,0	1,50	9,9	0,39	9,8	0,39	11,00	0,43	17,0	0,67
UQD06	3/4-16"	41,5	1,63	11,0	0,43	10,2	0,40	14,30	0,56	22,0	0,87
UQD08	7/8-14"	47,6	1,87	12,7	0,50	12,0	0,47	17,50	0,69	27,0	1,06

UNIVERSAL QUICK DISCONNECT

Push-on Female



Item	End size / Hose Tail (in)	A (mm)	A (in)	B (mm)	B (in)	C (mm)	C (in)	D (mm)	D (in)
UQD02	1/4"	18,5	0,73	38,5	1,52	19,0	0,75	14,0	0,55
UQD04	3/8"	24,5	0,96	49,5	1,95	23,7	0,93	19,0	0,75
UQD06	1/2"	28,0	1,10	52,0	2,05	25,8	1,02	23,0	0,91
UQD08	5/8"	31,8	1,25	60,6	2,39	38,5	1,52	27,5	1,08



BLIND MATE

Socket



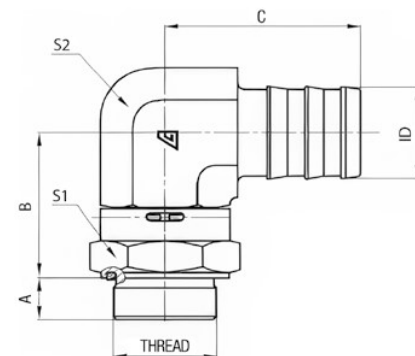
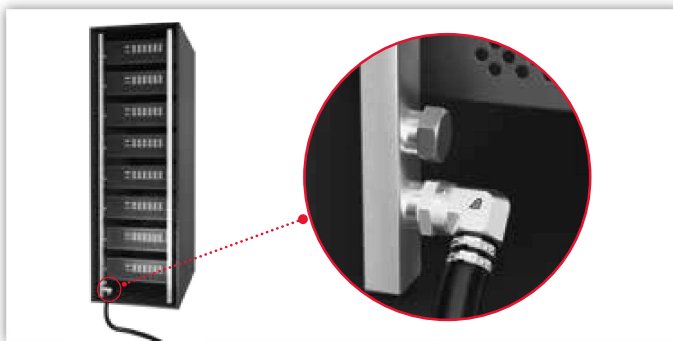
Item	Thread F1 (in)	A (mm)	A (in)	B (mm)	B (in)	C (mm)	C (in)	Hex (mm)	Hex (in)	E2E length (mm)
UQDB02	9/16"-18	33,6	1,32	23,6	0,93	18,0	0,71	14,0	0,55	35,8-37,2
UQDB04	3/4"-16	39,5	1,56	28,5	1,12	22,5	0,89	19,0	0,75	44,0-45,4
UQDB06	7/8"-14	44,5	1,75	31,8	1,25	27,4	1,08	24,0	0,94	47,5-48,9
UQDB08	1-1/16"-12	50,5	1,99	35,4	1,39	31,4	1,24	27,0	1,06	51,8-53,4

BLIND MATE

Plug ORB ISO 11926-3



Item	Thread F1 (in)	A (mm)	A (in)	B (mm)	B (in)	C (mm)	C (in)	J (mm)	J (in)	Hex (mm)	Hex (in)	E2E length (mm)
UQDB02	7/16-20"	36,0	1,42	27,0	1,06	20,0	0,79	6,65	0,26	19,0	0,75	35,8-37,2
UQDB04	9/16-18"	45,3	1,78	35,4	1,39	25,0	0,98	11,00	0,43	22,0	0,87	44,0-45,4
UQDB06	3/4-16"	50,0	1,97	38,9	1,53	28,3	1,11	14,30	0,56	27,0	1,06	47,5-48,9
UQDB08	7/8-14"	55,6	2,19	42,9	1,69	29,5	1,16	17,50	0,69	27,0	1,06	51,8-53,4



ADJUSTABLE FITTING

Port type ISO 1179-1



Item	Hose ID	End Thread & Type	A (mm)	A (in)	B (mm)	B (in)	C (mm)	C (in)	S1 (mm)	S1 (in)	S2 (mm)	S2 (in)
AF-16	1"	G1 -11 ISO1179-2 BSPP	18,0	0,71	60,8	2,93	55,7	2,19	41,0	1,61	41,0	1,61
AF-24	1 1/2"	G1.1/4 -11 ISO1179-2 BSPP	20,0	0,79	84,5	3,33	104,0	4,09	70,7	2,76	65,0	2,56
AF-32	2"	G2 -11 ISO1179-2 BSPP	24,0	0,94	84,5	3,33	113,0	4,45	75,0	2,95	65,0	2,56

// HYDRASWIFT COUPLINGS

The Alfagomma Hydraswift coupling is the solution specifically developed for liquid cooling systems in data centres to ensure **full flow performance**, **easy connection** and **safety**.

The coupling design with symmetric **identical halves** enables fast connection and disconnection; the **integrated valves** and the **double interlocking safety mechanics** avoid any spills during usage and ensure maximum safety eliminating accidental opening.

Available with threaded and flanged end connections or hose barb termination for crimped or clamped solutions on Alfagomma 959AA and 313AA cooling hoses.

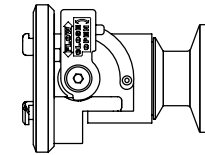
A comprehensive offering that enhances performance and adaptability in modern data centre applications.

FEATURES

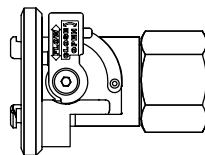
- ▲ Valves remain locked closed until both coupling halves are securely connected; disconnection is only possible once both valves are fully shut
- ▲ Dual interlock safety system for enhanced protection
- ▲ EPDM (peroxide-cured) seals
- ▲ AISI 304 stainless steel body
- ▲ Full-flow performance design
- ▲ Interchangeable, identical coupling halves
- ▲ Passivated AISI 304 stainless steel material for higher corrosion resistance
- ▲ Operating temperature range: 4 °C to 70 °C (39 °F to 158 °F)
- ▲ Multiple different end connection options available: sanitary Tri-clamp flange, NPT/BSPP male or female thread and hose barb



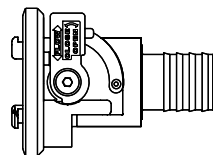
HYDRASWIFT COUPLINGS AVAILABLE WITH:



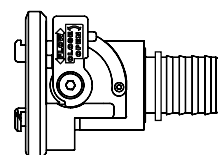
flanged end connection



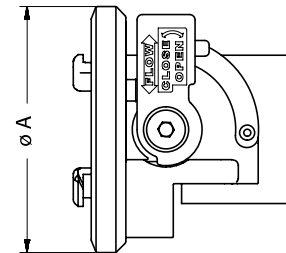
threaded end connection



hose barb for clamp



hose barb for ferrule



HYDRASWIFT COUPLING

Valved symmetric coupling

Coupling Size (in)	Max Operating Pressure		Min Burst Pressure		Rated Flow l/min.	Fluid Loss cc. max	Flow Coefficient Cv	A (mm)
	Connected (bar)	Disconnected Half (bar)	Connected (bar)	Disconnected Half (bar)				
1	10	10	20	20	192	4.3	32	71.5
2	10	10	20	20	820	11.6	131	105.0

// STAINLESS STEEL RIGID PIPES & CORRUGATED HOSE ASSEMBLIES

Alfagomma **designs, manufactures,** and distributes **stainless steel rigid pipes and wire braided corrugated flexible hose assemblies for cooling applications in data centres.**

Through continuous research and development, as well as technical and production expertise, Alfagomma customises products to meet **customers' specifications and requirements.**



// ACCESSORIES

Alfagomma is a **trusted single-source supplier** of **complete Direct Liquid Cooling systems**. In addition to advanced hose, coupling, and pipe solutions, the **offering includes all complementary components** – clamps, valves, manifolds, flanges, and fittings – engineered for seamless integration.

This all-in-one approach **ensures streamlined procurement, full compatibility, and consistent system performance.**

