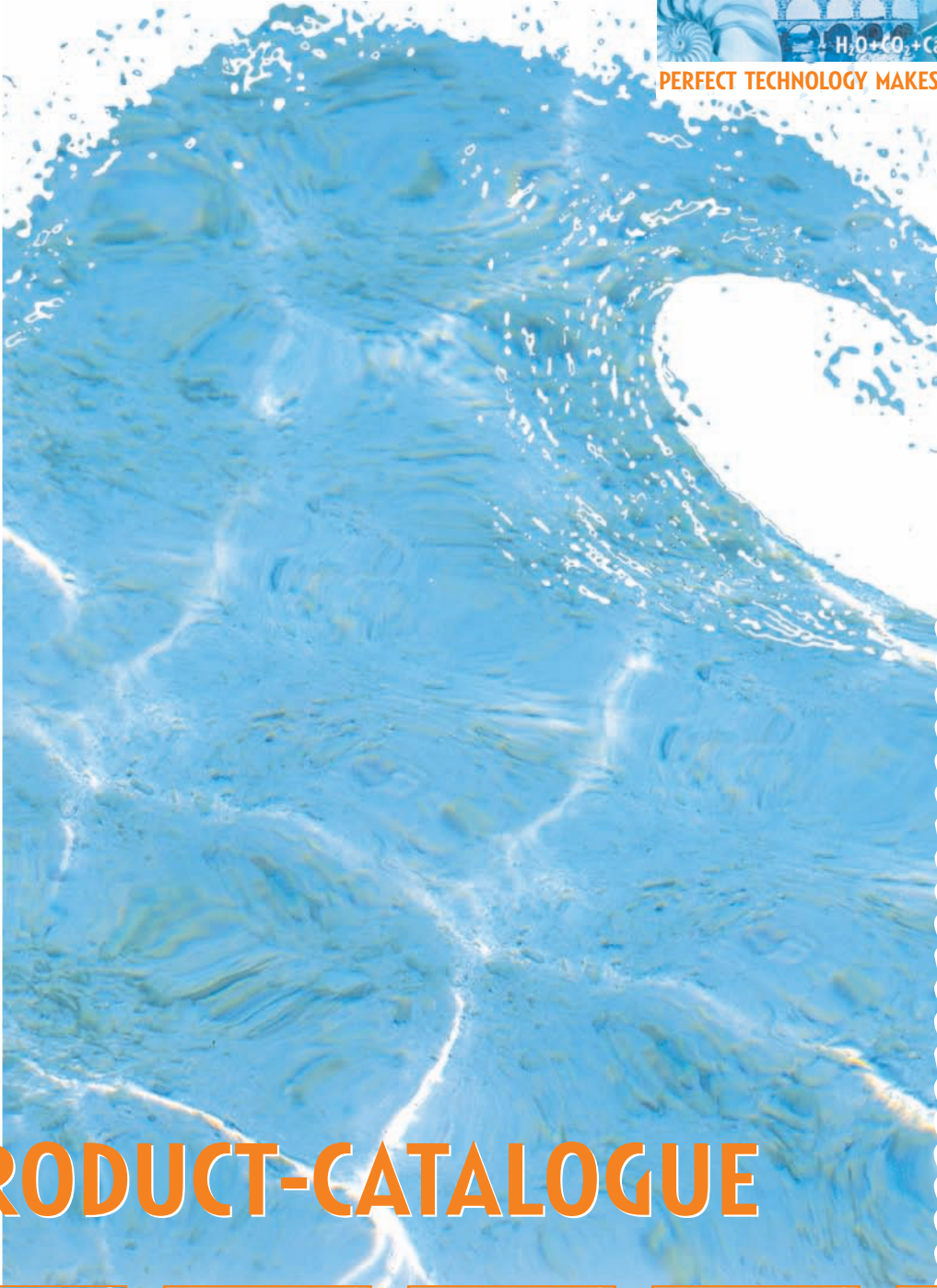




PERFECT TECHNOLOGY MAKES THE DIFFERENCE



PRODUCT-CATALOGUE



JUDO WATER CULTURE AT ITS BEST

JUDO - FASCINATION FUTURE

Striving for best water for Humankind and Technics is at the origin of a Technology developed and perfected by JUDO: The Water Treatment.

Founded over 70 years ago by Chief Engineer Julius Dopslaff JUDO has always been committed to creating solutions engineered to our clients' specific needs covering a range of topics from simple filtration to complex water treatment systems. In the mean time, the second generation has taken over the management of this family business.

Today Hartmut Dopslaff and his son Carsten Dopslaff share the responsibilities of managing the company.

JUDO discovers and develops new technologies, brings them to market, increases the product performance, gives new ideas to Water Culture. Our products meet the most discerning demands expected of safety and hygiene standards for water technology.

Beyond our distribution and service network in Germany, we collaborate throughout the world with well known trading partners who benefit from JUDO's many years of experience and the quality of our technology.

You can trust in both the immense potential and capabilities of JUDO and the quality of our products.



JUDO Headquarter Winnenden, Germany



JUDO Production Waldrems, Germany



JUDO France, Strasbourg



JUDO BeNeLux, Brussels



JUDO Austria, Stockerau

Your JUDO Water Treatment Company.

Chief executive officer
Hartmut J. Dopslaff

Chief executive officer
Carsten H. Dopslaff



**QUALITY
MADE IN GERMANY**

Index

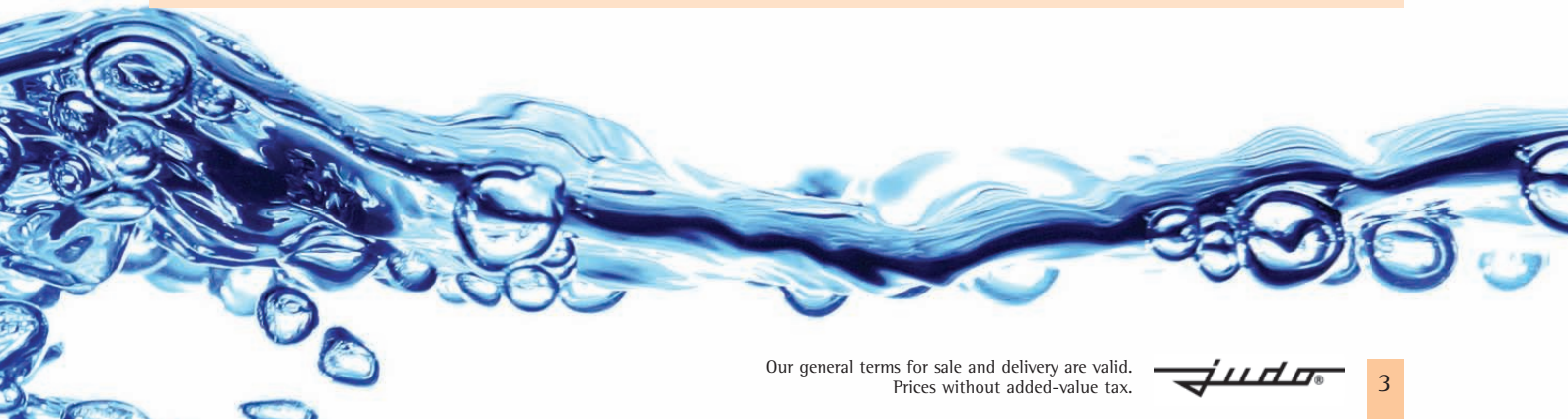
	Page		Page
FILTRATION		HEATING SYSTEMS	
♦ JUNIOR	4	♦ FERROCLEAN	43
♦ JRFSF	5-10	♦ HEIFI-FÜL	44
♦ Centrifugal Separator	11	♦ HEIFI-TOP	44
♦ PURE@TAP	12-13	♦ QUICK-DOS, THERMODOS and Test Kit	45
♦ E-Series Filter	14-17	♦ RESOFT	46
		♦ REPURE	47
ALTERNATIVE PROTECTION AGAINST LIME		WELLNESS	
♦ BIOSTAT-COMBIMAT	18-19	♦ JU-WEL Amethyst	49
♦ BIOSTAT	20-21	♦ JU-WEL Trio	49
		♦ JU-WEL Compact	50
		♦ JU-WEL Vario	50
CLASSIC SOFTENING		CHEMICALS AND FILTER MATERIALS	
♦ CONTISOFT	23	♦ Dosing Agents	51-54
♦ JUDOMAT 2 - 6	24-25	♦ Filter Material	55
♦ JUDOMAT 6 - 10 D and JUDOMAT Z-HW	26	♦ Accessories	55
♦ JUDOMAT DX 1000 - 2000	27-28		
♦ JUDOMAT 30 - 100 KB	28	♦ Test Kits and Analysis Equipment	56-57
♦ Aqua-Dania and QUICKSOFT	29		
♦ Accessories	30		
QUICKSET MOUNTING ACCESSORIES			
♦ QUICKSET Mounting Accessories	31		
DOSING			
♦ JULIA Dosing Pump	34		
♦ JULIA-Industrial Dosing Pumps	35-36		
♦ Mineral Solution JUL	36		
♦ WADOS Dosing Pumps	37		
♦ Chlorine Dosing Pumps	38		
♦ UNIDOS Dosing Pumps	39		
♦ Accessories	40		

Conversions

1 yd	1 yard = 3 feet	0,9144 m	1 psi	1 pound per square inch	0,06896 bar
1 ft (')	1 foot = 12 inches	0,3048 m	1 US gallon		3,78 l
1 in (")	1 inch = Zoll	25,4 mm	1 Imp. gallon	1 gallon = 8 pint (pt)	4,546 l
1 oz	1 ounce	28,35 g	°F	°F = (x-32) x 0,556 °C	
1 lb	1 pound = 16 ounces	453,6 g			

Hardness units	1 meq/l	1 °d / German	1 °f / France	1 °e / Great Britain	1 ppm / US	1 mmol/l
1 meq/l	1,0	2,8	5,0	3,5	50,0	0,50
1 °d	0,375	1,0	1,78	1,25	17,8	0,18
1 °f	0,2	0,56	1,0	0,7	10,0	0,10
1 °e	0,286	0,8	1,43	1,0	14,3	0,14
1 ppm	0,02	0,056	0,1	0,07	1,0	0,01
1 mmol/l	2,0	5,60	10,0	7,02	100	1,0

Pressure	Pa (N/m ²)	bar	at	Torr	atm
1 Pa = 1 N/m ²	1	10 ⁻⁵	1,020 x 10 ⁻⁵	0,750 x 10 ⁻²	0,987 x 10 ⁻⁵
1 bar	10 ⁵	1	1,020 x 10 ⁻⁶	0,750 x 10 ⁻³	0,987 x 10 ⁻⁶
1 at = 1 kp/cm ²	0,981 x 10 ⁵	0,981	1	735,6	0,9678
1 Torr	133,3	1,333 x 10 ⁻³	1,360 x 10 ⁻³	1	1,316 x 10 ⁻³
1 atm	1,013 x 10 ⁵	1,033	1,033	760	1



JUDO Filter

Backwash Protective Filter



Type JJF 3/4" - 1/4"

JUDO Backwash Protective Filter JUNIOR 3/4" - 1/4"

Type JJF 3/4" - 1/4" according to DIN 13443-1 for water up to 30 °C

Scope of Supply: Filter housing made of high-quality plastic PN 16, built-in rotary-flange with patented brass bayonet-joint,

threaded connection according to DIN 2999, filter insert of stainless steel, inferior/upper mesh size 0,095/0,125 mm, equipped with large handwheel for backwashing with simultaneous cleaning of the inspection glass, connection, flush valve with hose screwing.

Type	JJF	JJF	JJF
Pipe connection	3/4"	1"	1 1/4"
Water Flow Rate up to m ³ /h	3,3	4,5	5,2
Pressure Loss after Backwashing/bar	0,2	0,2	0,2
Installation Length mm	90	90	110
Mesh Size mm	0,1	0,1	0,1
Order - Number	8070012	8106150	8106151

Packing unit 12 pieces.

The Classics

Manual Backwash Protective Filters



Type JRSF 1" - 2"

JUDO Backwash Protective Filter JRSF 1" - 2"

Type JRSF 1" - 2"
according to DIN 13443-1
for water up to 30 °C

Scope of Supply: High quality cast-iron housing PN 10, corrosion resistant lining inside and outside (Rilsan), filter screen made of

stainless steel, inspection glasses on both sides, 2 filter chambers each one equipped with one permanent filter each, inferior/superior mesh size 0,095/0,125 mm, multi-way valve with handwheel for the setting of the operating and backwash-positions, flush valve.

Type	JRSF	JRSF	JRSF	JRSF
Pipe connection	1"	1¼"	1½"	2"
Nominal flow rate m³/h *	5	6	14	15
Pressure Loss after the Backwashing/bar	0,2	0,2	0,2	0,2
Installation Length mm	193	193	233	233
Mesh Size mm	0,1	0,1	0,1	0,1
Order - Number	8101010	8101011	8101012	8101013

On request, depending on the field of application, also available with mesh sizes 0,03/0,05/0,32/0,5 and 1,0 mm. Silicone-free type on request. Concerning JRSF Backwash Protective Filters the flow pressure after the filter has to be minimum 1,5 bar.



Type JRSF-HW 1" - 2"

JUDO Hot water Backwash Protective Filter JRSF-HW 1" - 2"

Type JRSF-HW 1" - 2"
for water up to 85 °C

Scope of Supply: Housing, resistant to hot water, made of high-quality cast iron, PN 10, corrosion resistant lining inside and outside (Rilsan), without sight glasses, 2 filter cham-

bers each one equipped with one permanent filter insert, mesh size 0,32 mm, filter and supporting insert made of stainless steel, multi-way valve with hand wheel for the setting of the operating and backwash-positions, flush valve.

Type	JRSF-HW	JRSF-HW	JRSF-HW	JRSF-HW
Pipe connection	1"	1¼"	1½"	2"
Nominal flow rate m³/h *	5	6	14	15
Flow pressure minimum bar	1,0	1,0	1,0	1,0
Differential pressure maximum bar	2,0	2,0	2,0	2,0
Operating temperature maximum °C	85	85	85	85
Mesh Size mm	0,32	0,32	0,32	0,32
Order - Number	8101030	8101031	8101032	8101033

On request also available with mesh sizes 0,5 and 1,0 mm.

* Rates valid for clean, mains water. For other supplies, please consult your local agent before installation



The Classics

Manual Backwash Protective Filters



Type JRSF DN 65 - 100

JUDO Backwash Protective Filter JRSF DN 65 - 100

Type JRSF DN 65 - 100 according to DIN 13443-1 for water up to 30 °C

Scope of Supply: High quality cast-iron housing with flanges, PN 10, corrosion resistant lining inside and outside (Rilsan), filter screen made of stainless steel, inspection glasses on both sides, 2 filter chambers each one equip-

ped with one permanent filter insert, multi-way valve with hand lever for the setting of the operating- and backwashing positions, flush valve with connection for differential pressure gauge 1/4".

Type	JRSF	JRSF	JRSF
Pipe connection	DN 65	DN 80	DN 100
Nominal flow rate m ³ /h *	33	38	58
Pressure Loss after the Backwashing/bar	0,2	0,2	0,2
Installation Length mm	370	370	420
Mesh Size mm	0,1	0,1	0,1
Order - Number	8102021	8102022	8102023

On request, depending on the field of application, also available with mesh sizes 0,03/0,05/0,32/0,5 and 1,0 mm. Silicone-free type on request. Concerning JRSF Backwash Protective Filters the flow pressure after the filter has to be minimum 1,5 bar.



Type JRSF-HW DN 65 - 100

JUDO Hot water Backwash Protective Filter JRSF-HW DN 65 - 100

Type JRSF-HW DN 65 - 100 for water up to 85 °C

Scope of Supply: Housing, resistant to hot water, made of high-quality cast iron, PN 10, corrosion resistant lining inside and outside (Rilsan), without sight glasses, 2 filter cham-

bers each one equipped with one permanent filter insert, mesh size 0,32 mm, filter and supporting insert made of stainless steel, multi-way valve with hand wheel for the setting of the operating and backwash-positions, flush valve, connection for differential pressure gauge.

Type	JRSF-HW	JRSF-HW	JRSF-HW
Pipe connection	DN 65	DN 80	DN 100
Nominal flow rate m ³ /h *	33	38	58
Flow pressure minimum bar	1,0	1,0	1,0
Differential pressure maximum bar	2,0	2,0	2,0
Operating temperature maximum °C	85	85	85
Mesh Size mm	0,32	0,32	0,32
Order - Number	8102031	8102032	8102033

On request also available with mesh sizes 0,5 and 1,0 mm.

* Rates valid for clean, mains water. For other supplies, please consult your local agent before installation

The Classics

Manual Backwash Protective Filters



Type JRSF DN 125 - 200

JUDO Backwash Protective Filter JRSF DN 125 - 200

Type JRSF DN 125 - 200 according to DIN 13443-1 for water up to 30 °C

Scope of Supply: Housing, made of welded steel, PN 10, with flanges, corrosion resistant lining inside and outside (Rilsan), sight glasses on both sides, 2 filter chambers each one

equipped with one permanent filter insert, mesh size 0,1 mm, filter and supporting insert, made of stainless steel, by-pass flaps with hand lever for the setting of the operating- and backwash-positions, flush-valves, connection for differential pressure gauge 1/4".

Type	JRSF	JRSF	JRSF
Pipe connection	DN 125	DN 150	DN 200
Nominal flow rate m ³ /h *	75	110	170
Pressure Loss after the Backwashing/bar	0,1	0,1	0,1
Installation Length mm	440	500	620
Mesh Size mm	0,1	0,1	0,1
Order - Number	8103035	8103036	8103037

On request, depending on the field of application, also available with mesh sizes 0,03/0,05/0,32/0,5 and 1,0 mm. Silicone-free type on request. Concerning JRSF Backwash Protective Filters the flow pressure after the filter has to be minimum 1,5 bar.



Type JRSF-HW DN 125 - 200

JUDO Hot water Backwash Protective Filter JRSF-HW DN 125 - 200

Type JRSF-HW DN 125 - 200 for water up to 75 °C

Scope of Supply: Housing, made of welded steel, PN 10, with flanges, corrosion resistant lining inside and outside (Rilsan), sight glasses on both sides, 2 filter chambers each

equipped with one permanent filter insert, mesh size 0,32 mm, filter and supporting insert made of stainless steel, reversing flaps with hand lever for the setting of the operating and backwash-positions, flush valve, connection for differential pressure gauge.

Type	JRSF-HW	JRSF-HW	JRSF-HW
Pipe connection	DN 125	DN 150	DN 200
Nominal flow rate m ³ /h *	75	110	170
Flow pressure minimum bar	1,0	1,0	1,0
Differential pressure maximum bar	2,0	2,0	2,0
Operating temperature maximum °C	75	75	75
Mesh Size mm	0,32	0,32	0,32
Order - Number	8103041	8103042	8103043

On request also available with mesh sizes 0,5 and 1,0 mm.

* Rates valid for clean, mains water. For other supplies, please consult your local agent before installation



JUDO JRSF - The Classic

Automatic Backwash Protective Filters



Type JRSF-A/TP 1" - 2"

JUDO Automatic Backwash Protective Filter JRSF-A 1" - 2"

Type JRSF-A 1" - 2" according to DIN 13443-1 for water up to 30 °C

Scope of Supply: Same as type JRSF 1" - 2", however, equipped with automatic electric backwashing control panel (230 V/50 Hz) for the setting of the operating and backwashing positions, automatic triggering of the backwashing.

Type of Control:

„TP“-Control: Differential pressure control with time priority switching, differential pressure switch adjustable up to 0,6 bar.

Potential free contact included.

Type	JRSF-A	JRSF-A	JRSF-A	JRSF-A
Pipe connection	1"	1 1/4"	1 1/2"	2"
Water Flow Rate up to m ³ /h	5	6	14	15
Pressure Loss after the Backwashing/bar	0,2	0,2	0,2	0,2
Installation Length mm	189	189	233	233
Mesh Size mm	0,1	0,1	0,1	0,1
Order - Number	„TP“	8501010	8501011	8501012 8501013

Silicone-free version is available on request. On request also available with special mesh sizes.

Required on site for all JRSF automatic backwash protective filters:

- Control water or control air minimum 4 bar (lower pressures on request)
- The flow pressure after the filter has to be minimum 1,5 bar



Type JRSF-HW A/TP 1" - 2"

JUDO Hot water Automatic Backwash Protective Filter JRSF-HW A/TP 1" - 2"

Type JRSF-HW A/TP 1" - 2" for water up to 85 °C

Scope of Supply: Same as type JRSF-HW 1" - 2", however, equipped with automatic electric backwashing control panel (230 V/50 Hz) for the setting of the operating and backwashing positions, automatic triggering of the backwashing, potential free contact included.

Type of Control:

„TP“-Control: Differential pressure control with time priority switching, differential pressure switch adjustable up to 0,6 bar.

Type	JRSF-HW A/TP	JRSF-HW A/TP	JRSF-HW A/TP	JRSF-HW A/TP
Pipe connection	1"	1 1/4"	1 1/2"	2"
Nominal flow rate m ³ /h	5	6	14	15
Pressure Loss after the Backwashing/bar	0,2	0,2	0,2	0,2
Installation Length mm	193	193	233	233
Mesh Size mm	0,32	0,32	0,32	0,32
Order - Number	„TP“	8052501	8052502	8052503 8052504

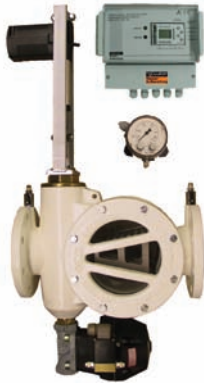
Silicone-free version is available on request. On request also available with special mesh sizes.

Required on site for all JRSF automatic backwash protective filters:

- Control water or control air minimum 4 bar (lower pressures on request)
- The flow pressure after the filter has to be minimum 1,5 bar

JUDO JRSF - The Classic

Automatic Backwash Protective Filters



Type JRSF-A/TP DN 65 - 100

JUDO Automatic Backwash Protective Filter JRSF-A DN 65 - 100

Type JRSF-A DN 65 - 100 according to DIN 13443-1 for water up to 30 °C

Scope of Supply: Same as type JRSF DN 65 - 100, however, equipped with automatic electric backwashing control panel (230 V/50 Hz) for the setting of the operating and backwashing positions, separately controlled, driven release valve (function: shut under spring pressure) with mounted pilot valve,

control medium air or water, automatic triggering of the backwashing, optionally:

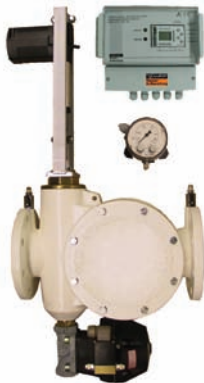
Timer controlled „T“
Differential pressure controlled „TP“
Differential pressure control „TP“ with time priority switching, differential pressure gauge adjustable up to 1,6 bar.

Potential free contact included.

Type	JRSF-A	JRSF-A	JRSF-A
Pipe connection	DN 65	DN 80	DN 100
Water Flow Rate up to m ³ /h	33	38	58
Pressure Loss after the Backwashing/bar	0,2	0,2	0,2
Installation Length mm	370	370	414
Mesh Size mm	0,1	0,1	0,1
Order - Number „T“	8302021	8302022	8302023
Order - Number „TP“	8502021	8502022	8502023

Silicone-free version is available on request. On request also available with special mesh sizes.

- Required on site for all JRSF automatic backwash protective filters:
- Control water or air pressure minimum 4 bar (lower pressures on request)
 - The flow pressure after the filter has to be minimum 1,5 bar



Type JRSF-HW A/TP DN 100

JUDO Hot water Automatic Backwash Protective Filter JRSF-HW A/TP DN 65 - 100

Type JRSF-HW A DN 65 - 100 for water up to 85 °C

Scope of Supply: Same as type JRSF-HW DN 65 - 100, however, equipped with automatic electric backwashing control panel (230 V/50 Hz) for the setting of the operating and backwashing positions, separately controlled, driven release valve (function: shut under spring pressure) with mounted pilot valve,

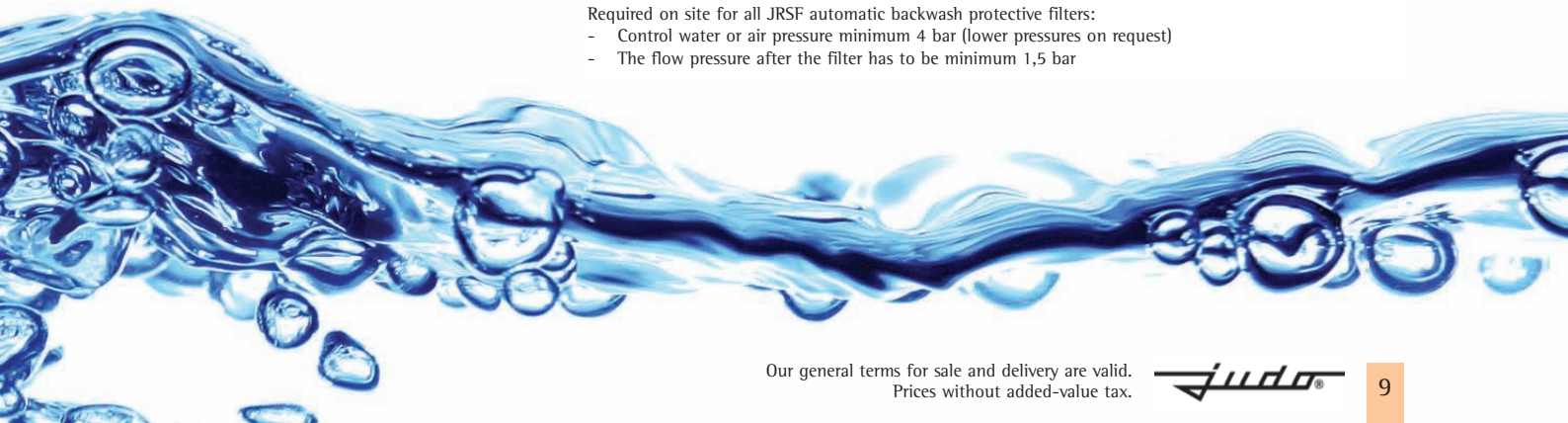
potential free contact included, control medium air or water, automatic triggering of the backwashing:

Differential pressure controlled „TP“
Differential pressure control „TP“ with time priority switching, differential pressure gauge adjustable up to 1,6 bar.

Type	JRSF-HW A/TP	JRSF-HW A/TP	JRSF-HW A/TP
Pipe connection	DN 65	DN 80	DN 100
Water Flow Rate up to m ³ /h	33	38	58
Pressure Loss after the Backwashing/bar	0,2	0,2	0,2
Installation Length mm	370	370	420
Mesh Size mm	0,32	0,32	0,32
Order - Number „TP“	8052505	8052506	8052507

Silicone-free version is available on request. On request also available with special mesh sizes.

- Required on site for all JRSF automatic backwash protective filters:
- Control water or air pressure minimum 4 bar (lower pressures on request)
 - The flow pressure after the filter has to be minimum 1,5 bar



JUDO JRSF - The Classic

Automatic Backwash Protective Filters



Type JRSF-A DN 200

JUDO Automatic Backwash Protective Filter JRSF-A DN 125 - 200

Type JRSF-A DN 125 - 200 according to DIN 13443-1 for water up to 30 °C

Scope of Supply: Same as type JRSF DN 65 - 100, however, equipped with automatic electric backwashing control panel (230 V/50 Hz) for the setting of the operating and backwashing positions, driven release valve (function: closed under elastic force) with mounted pilot valve, control medium air or

water, automatic triggering of the backwashing, optionally:

Timer controlled „T“
Differential pressure controlled „TP“
Differential pressure control „TP“ with time priority switching, differential pressure gauge adjustable up to 1,6 bar.

Potential free contact included.

Type	JRSF-A	JRSF-A	JRSF-A
Pipe connection	DN 125	DN 150	DN 200
Water Flow Rate up to m ³ /h	75	110	170
Pressure Loss after the Backwashing/bar	0,10	0,10	0,10
Installation Length mm	440	500	620
Mesh Size mm	0,1	0,1	0,1
Order - Number „T“	8303035	8303036	8303037
Order - Number „TP“	8503035	8503036	8503037

Silicone-free version is available on request. On request also available with special mesh sizes.

- Required on site for all JRSF automatic backwash protective filters:
- Control water or control air minimum 4 bar (lower pressures on request)
 - The flow pressure after the filter has to be minimum 1,5 bar



Type JRSF-HW A/TP DN 200

JUDO Hot water Automatic Backwash Protective Filter JRSF-HW A/TP DN 125 - 200

Type JRSF-HW A/TP DN 125 - 200 for water up to 75 °C

Scope of Supply: Same as type JRSF-HW A/TP DN 65 - 100, however, equipped with automatic electric backwashing control panel (230 V/50 Hz) for the setting of the operating and backwashing positions, driven release valve (function: closed under elastic force) with mounted pilot valve, potential

free contact included, control medium air or water, automatic triggering of the backwashing:

Differential pressure controlled „TP“
Differential pressure control „TP“ with time priority switching, differential pressure gauge adjustable up to 1,6 bar.

Type	JRSF-HW A/TP	JRSF-HW A/TP	JRSF-HW A/TP
Pipe connection	DN 125	DN 150	DN 200
Water Flow Rate up to m ³ /h	75	110	170
Pressure Loss after the Backwashing/bar	0,1	0,1	0,1
Installation Length mm	440	500	620
Mesh Size mm	0,32	0,32	0,32
Order - Number „TP“	8052508	8052509	8052510

Silicone-free version is available on request. On request also available with special mesh sizes.

- Required on site for all JRSF automatic backwash protective filters:
- Control water or control air minimum 4 bar (lower pressures on request)
 - The flow pressure after the filter has to be minimum 1,5 bar

JUDO Centrifugal Separator

For the precipitation of solid particles in drinking- and service-water

JUDO Centrifugal Separator JZA 20 - 80



Type JZA 20 - 80

Type JZA 20 - 80

For the precipitation of solid particles in drinking- and service-water, the centrifugal separators use the density difference between the substances to be separated and the water to be purified. Therefore they act ideally as a pre-treatment, before the backwash protective filters to prolong the retention time and the backwashing intervals. The best separating results can be found in the range between 70 to 100% of the maximal flow rate and a continuous flow rate. Requires air/water control pressure of 3 - 4 bar where the automatic sludge removal unit is in use.

Advantages of the centrifugal separators:

- ◆ No moving wearing parts
- ◆ No interruption times
- ◆ Little space required
- ◆ Periodical desludging of the separated substances
- ◆ No sieves or similar filter material required
- ◆ No maintenance or backwashing cycles
- ◆ Simple integration into existing tubes

Scope of Supply: The centrifugal separator itself is to be considered as a compact closed function unit with lateral intake and overhead discharge outlet. Material steel ST 37, varnished, PN 10.

Upon request design in stainless steel and higher performance.

Type	JZA 20	JZA 25	JZA 32	JZA 40	JZA 50	JZA 65	JZA 80
Nominal flow rate m ³ /h	2 - 5	4 - 8	6 - 12	9 - 17	14 - 24	21 - 35	33 - 65
Pressure Loss bar	0,3 - 0,9	0,3 - 0,9	0,3 - 0,9	0,3 - 0,9	0,3 - 0,9	0,3 - 0,9	0,3 - 0,9
Pipe connection	3/4" AG	1" AG	1 1/4" AG	1 1/2" AG	2" AG	DN 65	DN 80
Flushing connection	3/4" AG	3/4" AG	3/4" AG	3/4" AG	3/4" AG	3/4" AG	3/4" AG
Order - Number	8360446	8360447	8360448	8360449	8360450	8360451	8360452

Type	JZA 100	JZA 125	JZA 150	JZA 200
Water Flow Rate m ³ /h	64 - 125	90 - 170	165 - 270	230 - 380
Pressure Loss bar	0,3 - 0,9	0,3 - 0,9	0,3 - 0,9	0,3 - 0,9
Pipe connection	DN 100	DN 125	DN 150	DN 200
Flushing connection	1 1/2"	1 1/2"	1 1/2"	1 1/2"
Order - Number	8360453	8360454	8360455	8360456

Flushing Units

For a time controlled flushing of the sedimentation chamber, consisting of a solenoid valve, normally closed, with mounted timer, 230 V/ 50 Hz, opening time 0 - 30 sec., 3/4"

Type JAE 20	Order - Number	8360457
Type JAE M 20 Manual Flushing Valve 3/4"	Order - Number	8361010



JUDO PURE@TAP POINT OF USE (POU) WATER TREATMENT

Drinking water is our food-number one and as such enjoyable when it's crystal clear, fresh, neutral in taste and reduced from the entire content of bacte-

rias. If such water is not at your reach, JUDO has a brand new solution: The PURE@TAP Filtration System from JUDO. Drinking water from this water

station is a real delight. This brilliant idea combines Filter + Filter + Silver. Those 3 elements provide a healthy water.

Activated Carbon Filtration (Type AC)

A high quality Activated Carbon block Filter (approx. filtration efficiency 10 μ) removes particles such as: rust, dirt, chlorine, pesticide, lead and unwanted odour or taste from your drinking water source.

Micro Filtration (Type MF)

Micro filtration cartridge with filtration efficiency 0,2 μ . Stops bacteria such as, Legionella, Cysts and Cryptosporidium.

JUDO LEGIOLAX (Type JLX)

The JUDO LEGIOLAX tube insert with anti-germs silver surface inhibits bacterial growth in the faucet line.

The Advantages of the PURE@TAP:

- ◆ Filtration without chemical additives
- ◆ Ameliorates sensibly the flavour
- ◆ Eliminates unpleasing odour
- ◆ Retains harmful materials, bacteria, and germs up to 99,99 %
- ◆ The minerals are maintained in the water
- ◆ Easy installation under sink
- ◆ Filter replacement only every six months
- ◆ Space saving design
- ◆ Materials suitable for drinking water
- ◆ Long-lasting stable metal housing (PN 10)
- ◆ No power connection required
- ◆ Made in Germany



JUDO PURE@TAP – Point of use (POU) water treatment

For the purification of drinking water, under the sink installation



Type PURE@TAP-ACMF

JUDO PURE@TAP

Type PURE@TAP-AC

Scope of Supply: Consisting of one well designed transparent filter housing with connection flange made of brass, carbon-block-filter cartridge, JUDO LEGIOLAX antimicrobial silver coated tube insert, lead free faucet for top mount installation, wall clip for filter housing, t-junction with closing valve and tubing.

Type PURE@TAP-ACMF

Scope of Supply: Consisting of two directly connected and well designed transparent filter housings with connection flange made of brass, carbon-block-filter cartridge, high area micro filtration cartridge, JUDO LEGIOLAX antimicrobial silver coated tube insert, lead free faucet for top mount installation, wall clip for filter housing, T-junction with closing valve and tubing.

Type	PURE@TAP-AC	PURE@TAP-ACMF
Nominal water flow rate l/h	200	200
Approx. daily consumption l/day	20	20
Pipe connection	1/2"	1/2"
Filtration efficiency AC-filtration µ	< 10	< 10
Filtration efficiency Micro-filtration µ		< 0,2
Working pressure min. bar	2	2
Working pressure max. bar	10	10
Temperature max. °C	30	30
Recommended cartridge replacing interval months *	6	6
Measurements (wall mounted parts)		
Width mm	120	240
Length mm	95	95
Height mm	230	230
Order - Number	8115011	8115010

* The replacement of the cartridge after six month is based on a consumption of 20 litres per day

Replacement cartridges

JFK-AKB 10-4 Carbon-Block-Cartridge	Order - Number	8115016
JFK-MF 02-4 Micro-Filtration-Cartridge	Order - Number	8115017

Removal levels of PURE@TAP*:

- ◆ **Bacterias** (E. coli, Ent. faecalis, Staphyl. aureus, Staphyl. haemolyticus, Enterobacter cloacae, Pseudom. aeruginosa, Bacillus subtilis) over 98 %
- ◆ **Micro organism** (Entam. coli, Giardia Lamblia, Ascaris suum, Cryptospor. parvum, Schistosoma mansoni) over 98 %
- ◆ **Chlorine, Chloroform, Lindane, DDT and Atrazine** over 98 %
- ◆ **Pharmaceutical removal** (Clofibrinsäure, Carbamazepin, Ibuprofen, Diclofenac, Ketoprofen, Propiphenazon) over 98 %
- ◆ **Polar pesticides** (Bentazon, 2,4 D, MCPA, p.P'-DDA, Dichlorprop., Mecoprop.) over 98 %
- ◆ **Lead and Cooper** over 90 %

* actual levels will depend on flow rates and incoming water quality

JUDO Bed-Filtration - Pulling out all the stops

The modular use of different pre- and post-treatment steps make possible the production of drinking water and service water of the most different origin, for example surface water contaminated by suspended matters, heavily polluted well water, brackish water, and seawater.

In combination with flocculation, sedimentation, filtration, and sterilization as well as the most up to date ion exchange – and membrane methods JUDO produces a made-to-measure water quality.



Well water untreated

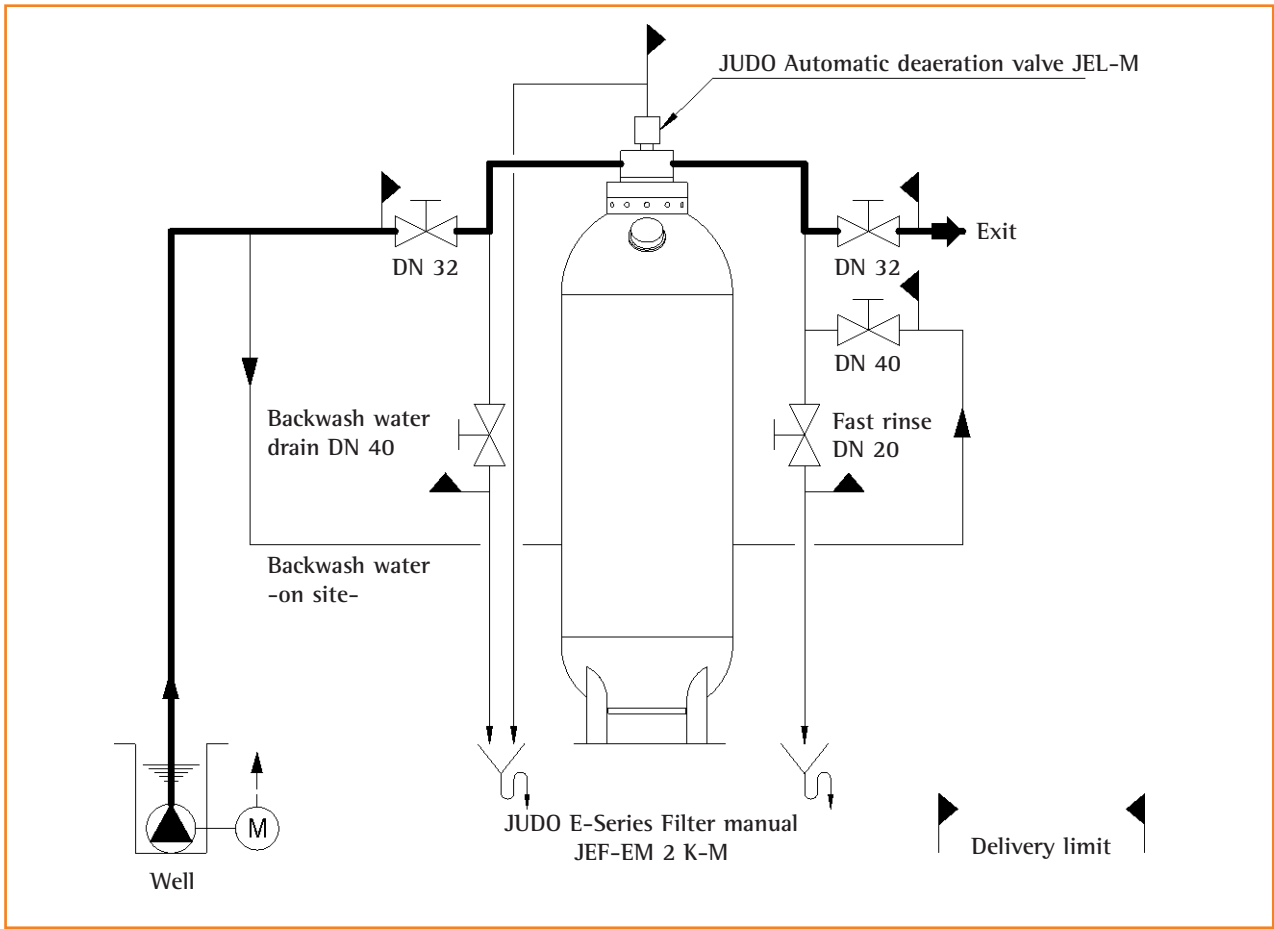


Well water treated

	Type JEF-MF	Type JEF-S	Type JEF-AK	Type JEF-EM
Elimination of fine to very fine impurities, that lead to a turbidity of the water, and depending on its intrinsic coloration to a discoloration.	●			
Binds excess carbon dioxide that corrodes the installations and tubes and leads to serious damages.		●		
Eliminates organic impurities, that lead to an impairment of the water concerning its odor and taste.			●	
Combines deferrization and simultaneous demanganization of the water.				●
Available as:				
Automatic Version	●	●	●	●
Manual Version	●	●	●	●

Installation scheme

JUDO E-Series Filter



Example of an Installation scheme



JUDO E-Series Filters

Perfect Well Water Treatment



Type JEF automatic

JUDO E-Series Filters JEF-MF, -S, -AK and -EM

Scope of Supply: Filter vessel made of fiber glass reinforced polyester, with nozzle distributor, upper and lower nozzle, different filter layers, filter filling depends on the particular purpose and on the quality of the water.

Type JEF K-A: Design with central control valve for an automatic (time-controlled) backwashing.

Type JEF K-M: Design with individual valves, to be operated manually, for the operating and the backwashing.

JEF-MF Cleaning and Decolorizing

Type JEF	Automatic			Manual
	MF 2 K-A	MF 3 K-A	MF 6 K-A	MF 6 K-M
Water Flow Rate max. m ³ /h	2	3	6	6
Water Flow Rate normal m ³ /h	1	1,5	3	3
Pipe connection DN	25	25	40	32
Rinsing capacity m ³ /h	2	3,5	7,5	7,5
Approximate rinsing volume m ³ *	0,34	0,59	1,25	1,25
Required space length x width x height mm	700 x 700 x 2.100	800 x 800 x 2.500	950 x 950 x 2.600	1.300 x 1.100 x 1.800
Operating pressure min./max. bar	3/6	3/6	3/6	3/6
Operating temperature °C	30	30	30	30
Order - Number	8120094	8120095	8120096	8360463

* Depending on the pollution



Type JEF manual

JEF-S Partial Deacidification

Type JEF	Automatic			Manual
	S 2 K-A	S 3 K-A	S 6 K-A	S 6 K-M
Water Flow Rate max. m ³ /h	2	3	6	6
Water Flow Rate normal m ³ /h	1	1,5	3	3
Pipe connection DN	25	25	40	32
Rinsing capacity m ³ /h	2	3,5	7,5	7,5
Approximate rinsing volume m ³	0,34	0,59	1,25	1,25
Required space length x width x height mm	700 x 700 x 2.100	800 x 800 x 2.500	950 x 950 x 2.600	1.300 x 1.100 x 1.800
Operating pressure min./max. bar	3/6	3/6	3/6	3/6
Operating temperature °C	30	30	30	30
Order - Number	8120097	8120098	8120099	8360464

JEF-AK Taste and Odor Improvement

Type JEF	Automatic			Manual
	AK 2 K-A	AK 3 K-A	AK 6 K-A	AK 6 K-M
Water Flow Rate max. m ³ /h	2	3	6	6
Water Flow Rate normal m ³ /h	1	1,5	3	3
Pipe connection DN	25	25	40	32
Rinsing capacity m ³ /h	2	3,5	7,5	7,5
Approximate rinsing volume m ³	0,34	0,59	1,25	1,25
Required space length x width x height mm	700 x 700 x 2.100	800 x 800 x 2.500	950 x 950 x 2.600	1.300 x 1.100 x 1.800
Operating pressure min./max. bar	3/6	3/6	3/6	3/6
Operating temperature °C	30	30	30	30
Order - Number	8120100	8120101	8120102	8360460

JUDO E-Series Filters

Perfect Well Water Treatment



Type JEF automatic



Type JEF manual

JEF-EM Catalytic Removal of Iron and Manganese

Type JEF	Automatic		Manual	
	EM 2 K-A *	EM 4 K-A *	EM 2 K-M *	EM 4 K-M *
Water Flow Rate max. m ³ /h	2	4	2	4
Water Flow Rate normal m ³ /h	1,5	3	1,5	3
Pipe connection DN	25	40	25	32
Rinsing capacity m ³ /h	2,5	5,5	2,5	5,5
Approximate rinsing volume m ³ *	0,5	1,0	0,5	1,0
Required space length x width x height mm	1.300 x 850 x 2.500	1.450 x 950 x 2.600	1.100 x 650 x 2.400	1.300 x 1.100 x 1.800
Operating pressure min./max. bar	3/6	3/6	3/6	3/6
Operating temperature °C	30	30	30	30
Order - Number	8120104	8120105	8360465	8360462

* Potassium permanganate dosage required for the continuous regeneration, for example JWD-KH 10-50

Requirement for the reduction of manganese:

Ammonium content < 0,3 mg/l, for the removal of iron and manganese, oxygen content > 4 mg/l

Accessoires for JUDO E-Series Filters

Description	Type	Order-Number
JUDO Automatic deaeration valve R 1/2" for the automatic deaeration of the filter unit, required in case of oxidation with air.	JEL-M	8721227
JUDO Manual deaeration valve R 1/2" for the manual deaeration of the filter unit.		8360010
Oxidation unit for aeration and intensive mixing application in order to transform iron in solution into a filterable form and to enrich the air content in water with low oxygen content. Consisting of: oil-free compressor, regulating valve, magnetic start-up valve, check valve with mixing unit incorporated into pvc-based unit.		
Model JO 5: for use in filtration at up to 4 bar counterpressure up to 6 m ³ /h at 6 bar counterpressure up to 4 m ³ /h, connection for raw water DN 65, max. pressure 10 bar, electrical connection 230 V/50 Hz, wattage 0.27 kW.	JO 5	8360470
Model JO 10: for use in filtration at up to 4 bar counterpressure up to 15 m ³ /h at 6 bar counterpressure up to 9 m ³ /h, connection for raw water DN 65, max. pressure 10 bar, electrical connection 230 V/50 Hz, wattage 0.31 kW.	JO 10	8360471

Operational materials for JUDO E-Series Filter

Description	Type	Order-Number
JUDO Potassium permanganate as an organic pulverulent, oxidant for the treatment of drinking water and service water, packing unit à 5 kg.		8839106
JUDO Deacidification material to refill periodically the used filter media, as porous calcium carbonate, packing unit à 50 kg.	JUDOFILT-CA	8360067

* Only when shipped together with E-Series-Filter units these working materials will be sent free of freight charges

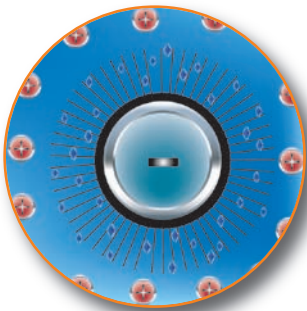
A Worlds First! Full limescale protection with no cartridge change!



for anti-lime-protection
DVGW-W510

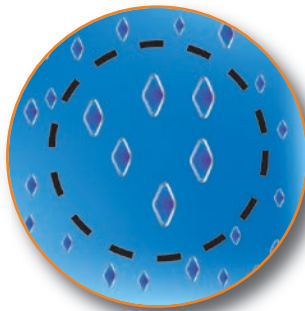


Only the patented BIostat-COMBIMAT has the unique Four-stage System



stage one: DVGW certificated Lime Treatment

The BIostat-COMBIMAT creates seed-crystals from water. These microscopically small calcium carbonate crystals are held in suspension and flow with the water into the domestic installations. There surplus calcium carbonate settles preferably on these crystals, and not on the surface of heating coils or in the pipes. The control of the lime treatment happens completely automatically. A micro-processor with water meter considers the water quality and the water flow. This ensures a constantly effective water treatment.



stage two: Optimization through Selection

During stage two of the four-stage system the seed-crystals are selected. This selection operation ensures that only the "best ones" can leave the treatment chamber, to achieve thus an optimum effect.



stage three: Fully-automatic Cleaning

During Stage three a patented cathode is employed. Wipers relieve it, from time to time, fully-automatically, from adherent lime scale. These lime particles are collected in the treatment chamber and, are also, after that, automatically flushed out into the discharge line. Contrary to the customary methods, by means of the patented JUDO-system, the treatment chamber can be protected durably, against calcification and blocking. Furthermore the used material is treated carefully by not undergoing a pole-reversal of the electrodes. The fully-automatic cleaning of the treatment chamber, without a pole-reversal, permits therefore a durable operating without cartridge replacement.



stage four: Hygiene by means of Active Oxygen

In parallel to the lime protection the BIostat-COMBIMAT fights germs and herewith the danger of the germ proliferation [applied for a patent]. The centrepiece of the hygiene unit are the special hygiene anode and the intelligent control unit. As soon as water flows active oxygen is produced at this anode without addition of chemicals.

JUDO BIostat-COMBIMAT

The New Generation

Requirement for Hygiene:
Clean pipe lines:

All the important hygiene-guidelines require clean and smooth inside surfaces of the tubes, because their condition is of importance for the colonisation with micro-organisms.

Lime scale in piping installations reduces their cross-section and at the same time, with their rugged surface, they form an ideal breeding-ground for germs.

The new BIostat-COMBIMAT is true to its name. Due to its innovative method, it forms the basis for hygiene in the drinking water installation.

Only the market leader can offer these advantages:

- ◆ Lime protection, DVGW tested and certified
- ◆ Stops lime scale in accordance with a patented method
- ◆ Fights germs by means of active oxygen
- ◆ No hygiene critical cartridge replacement
- ◆ Blocking-free effect unit
- ◆ Continuous water supply
- ◆ Fully-automatic operating
- ◆ Time-saving installation with aid of the patented JUDO QUICKSET-E by the specialist plumber
- ◆ High-class silver design



Type BST-CA

JUDO Limescale protection- and Hygiene Unit BIostat-COMBIMAT

Type BST-CA 15 - 25
for water up to 30 °C

Scope of supply: beautifully shaped and stable housing, PN 10, integrated water meter, electrolytically working and patented seed-crystal generator, with microprocessor-regulated current. Power supply unit, tested in accordance with VDE, hygiene unit with lime protection- and hygiene-anode against the

bacterium Legionella, with two variable-speed motors for the automatic cleaning of the cathode and the derivation of the surplus lime into the discharge line. Service- and functions-indication by means of light-emitting diodes, built-in rotary flange with patented bayonet-connector with screw connection and mounting lid, power supply unit [230 V/50 Hz].

Type	BST-CA type 15	BST-CA type 25
Pipe connection	3/4"	1"
Nominal flow rate m ³ /h	1,5	2,5
Max. quantity of accommodation units	1	2
Pressure loss at nominal flow rate bar	0,2	0,4
Nominal pressure PN 10 bar	10	10
Max. temperature of the water °C	30	30
Power supply V/Hz	230/50	230/50
Max. power consumption watts **	20	25
Width mm	330	330
Height mm	855	855
Depth to pipe centre mm	240	243
Depth to pipe centre with JQX mm	305	308
Order - Number	8210411	8210412

* Valid for anti-lime protection in accordance with DVGW W510

*** Only during water removal

JUDO BIOSTAT - Tested Limescale Protection For Industrial Tasks



The advantages:

- ◆ DVGW-tested single components
 - ◆ Installation of a pipe disconnector is not necessary
 - ◆ Stops lime scale according to the three-stage system
 - ◆ Time- and money-saving maintenance
- Due to the possibility to lock up particular sectors an almost 100% operating is ensured also when maintenance takes place.

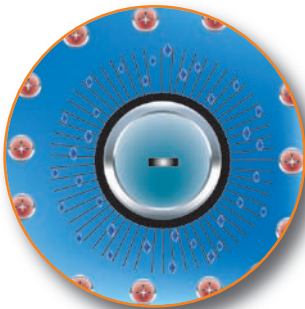


applied for a patent



type TGA

JUDO BIOSTAT: Limescale Protection according to the Three-stage-system

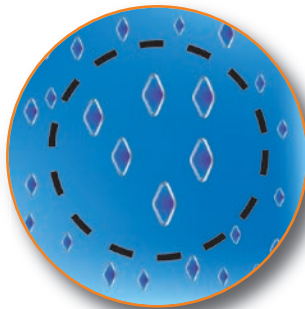


stage one: DVGW certificated Lime Treatment

The BIOSTAT creates seed-crystals from water. These microscopically small calcium carbonate crystals are held in suspension and flow with the water into the domestic installations.

There surplus calcium carbonate settles preferably on these crystals, and not on the surface of heating coils or in the pipes.

The control of the lime treatment happens completely automatically. A micro-processor with water meter considers the water quality and the water flow. This ensures a constantly effective water treatment.



stage two: Optimization through Selection

During stage two of the three-stage system the seed-crystals are selected.

This selection operation ensures that only the "best ones" can leave the treatment chamber, to achieve thus an optimum effect.



stage three: Fully-automatic Cleaning

During Stage three a patented cathode is employed. Wipers relieve it, from time to time, fully-automatically, from adherent lime scale. These lime particles are collected in the treatment chamber and, are also, after that, automatically flushed out into the discharge line. Contrary to the customary methods, by means of the patented JUDO-system, the treatment chamber can be protected durably against calcification and blocking. The used material is treated carefully by not undergoing a pole-reversal of the electrodes.

JUDO BIOSTAT 2050 - 2200

Limescale protection Concerning Housing Areas, Trade and Industry



type TGA

JUDO Limescale Protection Unit for Building Engineering BIOSTAT 2050 - 2200

Type BST 2050 - 2200
for water up to 30 °C

Limescale Protection with DVGW-tested
single devices.



Type BST 2200

Expert service required!

Design: Modular designed compact unit, independent single devices with DVGW-tested technique, individually lockable for maintenance purposes, integrated water meter electrolytically working and patented seed-crystal generator with microprocessor-regulated current.

Automatic determination and indication of the flushing point as well as of the replacement interval for the anti-lime protection unit. Service- and functions indication by means of light-emitting diodes. Equipped with electric motors for the automatic cleaning of the cathode and the derivation of the surplus lime into the discharge line. VDE-tested power supply unit, complete with internal device pipelining.

Type	BST 2050	BST 2100	BST 2150	BST 2200
Pipe connection	DN 40	DN 65	DN 65	DN 65
Nominal flow rate m ³ /h	5	10	15	20
Max. numbers of accommodation units	12	45	65	90
Pressure loss at nominal flow rate bar	0,5	0,8	0,8	0,8
Nominal pressure bar	10	10	10	10
Maximum temperature of the water °C	30	30	30	30
Power supply V/Hz	230/50	230/50	230/50	230/50
Maximum average daily consumption m ³	1,6	3,2	4,8	6,4
Capacity of the protection unit m ³	1.600	3.200	4.800	6.400
Number of the protection units	2	4	6	8
Maximum power consumption watts *	50	100	150	200
Length mm	700	860	1.220	1.580
Width mm	420	890	890	890
Height mm	550	1.220	1.220	1.220
Order - Number	8210350	8210351	8210352	8210353

* only during water removal

Also available with potential-free contact on request (Order-Nr. 8200345, Units 680, DG 3) for remote transmission of error reports.

Anti-lime protection unit for BST 2050 - 2200
Replacement by the JUDO customer service or a trained plumber

Order - Number: 2210372

The Classic Softening

Softening using the Ion Exchange Method

Important Information

DVGW-tested Softening Units

The DIN-standard 1988, part 2, writes relating to drinking water: Chapter 8: Due to the advancing technization of the households, drinking water is also used increasingly for technical purposes. In these circumstances a drinking water treatment can be useful. For that, filters, dosing devices and softening units are applied. In order that they work according to their function and without disadvantageous side effects, ...only devices with DIN-DVGW test mark may be installed, if additional safety fittings in accordance with the DIN-standard DIN 1988, part 4 shall be abandoned.

Chapter 8.3.3: Only softening units with DIN-DVGW test mark may be installed; in accordance with the DIN-standard DIN 1988, part 4 for these units no additional safety devices are required.

Relating to technical water: DIN 1988, part 4, table 1, number 10: For softening units without DVGW test mark a pipe disconnecter, installation style 1, has to be designed.



DVGW-tested softening units	●	●	
Softening in accordance with the ion exchange method	●	●	●
Integrated disinfection device	●	●	optional
Wonderfully soft water	●	●	●

Available as:

Quantity-controlled design with compulsive regeneration	●	●	●
Time-controlled design			●

Capacity:

Short-run peak-flow	to 3,5 m ³ /h	to 20 m ³ /h	to 40 m ³ /h
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JUDO CONTISOFT

DVGW-tested softening unit for technical building installations

Tested, stagnation-free technique from the inventor of the first DVGW-tested softening unit.

Experience is not to be replaced by anything. Already in 1983, JUDO launched the first water softening unit with DVGW test mark.

The preliminary culmination concerning the softener development at JUDO is the new JUDO CONTISOFT.

As first softener unit it offers stagnation-free operation-flows.

The most Important Advantages on One Sight:

- **DIN-DVGW certificated device-technique**
The installation of a pipe disconnecteur is not necessary.
- **Continuous device conception**
From domestic technique to technical building installations
- **The first softening unit for the building engineering with stagnation-free operation flows**
Parallel operating modes ensure the equal perfusion of all components.
- **The performance data are in accordance with DIN 19636**
Economical salt setting and minimum pressure loss.
- **Hygiene optimised dispatch- and installation conditions**
Delivery of complete devices, filled and ready for use
- **Integrated device disinfection performance**
Even during salt deficiency, and every 96 hours at the latest, independent of the quantity of water removal.
- **Wear-free ceramic disc-technology**
Device-control, thousandfold approved with lifelong „programming“, without data loss.
- **Fast-regeneration within sensational fifteen minutes**
The entire unit can be regenerated completely within a quarter of an hour.
- **Time priority switching**
Becomes active, if, within four days, no regeneration is triggered by means of the water meter.
- **Time- and money-saving maintenance**
Due to the possibility, to lock individual sectors, an almost one hundred percent operating is also possible when under maintenance.



type
JCS-2P



Type JCS 15

JUDO Softening Units CONTISOFT

Type JCS 5 - 20
In accordance with DIN 19636
For water up to 30 °C

Softening Unit with DVGW – certificated single devices.

Scope of Supply: unit, consisting of fibre glass reinforced individually lockable filter tanks, filter fillings of high performance monospheric ion exchange resin in foodstuff quality for the optimum density of discharge and minimization of pressure loss and use of regenerants, equipped with quantity-depen-

ding control, thousandfold approved wear-free ceramic disc-technology for a lifelong programming of the operation-flows, control electronics with LED-indication of all the service- and regeneration statuses, as well as manual triggering of the regeneration, compulsive regeneration, after 96 hours at the latest and the hygienising of the unit by means of a built-in disinfection-device with platinised Titanium anodes, power supply unit 230 V/50 Hz, separate salt solution- and storage tank with continuous brine storage, complete with internal device pipelining and residual hardness blend-device.

Type		JCS 5	JCS 10	JCS 15	JCS 20	
Nominal flow rate from 20 °dH to 8 °dH in accordance with DIN 19636	m ³ /h	5,0	10,0	15,0	20,0	
Nominal flow from 20 °dH to 0,5 °dH	m ³ /h	3,0	6,0	9,0	12,0	
Max. numbers of accommodation units		15	30	100	200	
Pipe connection		1½"	DN 65	DN 65	DN 65	
Pressure loss at nominal flow and hardness of 20 °dH, residual hardness of 8 °dH	bar	0,8	0,8	0,8	0,8	
Nominal pressure	bar	10	10	10	10	
Nominal capacity	Mol	1,8	3,6	5,4	7,2	
Salt storage tank, content	kg	80	160	240	320	
Salt consumption per regeneration	kg	0,40	0,80	1,20	1,60	
Sewage per regeneration at 4 bar	litres	39	78	117	156	
Max. operating pressure	bar	8	8	8	8	
Min. flow pressure at nominal flow	bar	2	2	2	2	
Max. operating temperature	°C	30	30	30	30	
Operating weight with complete salt filling	kg	125	260	330	490	
Shipping weight	kg	50	120	180	280	
Required space						
	Length	mm	981	860	1.220	1.580
	Width	mm	552	1.280	1.280	1.280
	Height	mm	1.100	1.200	1.200	1.200
Order - Number		8200340	8200341	8200342	8200343	

Also available with potential-free contact on request (Order-Nr. 8200345, Units 680, DG 3) for remote transmission of error reports.

The Classic Softening Method

Softening using the Ion Exchange Method



Type JM 2 - 3 Z-E and WZ-E

JUDO Softening Units JUDOMAT 2 - 6

Single units / time controlled:
JM 2 - 4 Z-E

Scope of Supply: One ion exchange resin tank, made of glass fibre reinforced polyester with plastic nozzles, control valve for automatic timer controlled regeneration, filter filling consisting of high-performance ion exchange resin, suitable for use with food-stuffs. Salt solution and storage tank with cover, made of high impact-resistant plastic, intermediate support, brine valve and suction line.

Single units / water-meter controlled:
JM 2 - 6 WZ-E

Scope of Supply: Same as time-controlled single-unit, however, with water-meter controlled automatic regeneration, and contact water meter for the determination of the moment of the regeneration.

Type	JM 2	JM 3	JM 4	JM 6
Maximum water flow rate m ³ /h	2	3	4	6
Pipe connection	1"	1"	1"	1"
Capacity at optimal salt setting °dH x m ³	60	100	200	300
Salt consumption kg/regeneration	3,3	5,5	11	16,5
Capacity at economical salt setting °dH x m ³	45	75	150	225
Salt consumption kg/regeneration	1,8	3	6	9
Salt solution and storage tank content l	78	78	200	300
Length mm	800	800	1.350	1.350
Depth mm	1.000	1.000	1.000	1.000
Height mm	1.110	1.110	1.135	1.580
Single units / time controlled	JM 2 Z-E	JM 3 Z-E	JM 4 Z-E	
Order - Number	8390055	8390056	8390057	
Single units / quantity controlled	JM 2 WZ-E	JM 3 WZ-E	JM 4 WZ-E	JM 6 WZ-E
Order - Number	8390059	8390060	8390061	8390062



Type JM 2 - 3 WZ-D

Duplex units / water-meter controlled:
JM 2 - 3 WZ-D

For a continuous soft water removal without interruption for example before the Reverse-Osmosis-installations.

Scope of Supply: same as water-meter controlled single unit, however, equipped with two ion exchange resin tanks, salt solution and storage tank, internal connecting piping and automatic switching over to the filter, being in reserve (alternate operating).

Type	JM 2 WZ-D	JM 3 WZ-D
Temporary peak flow rate m ³ /h	2	3
Maximum continuous flow rate		
Residual hardness < 0,1 °dH at 20 °dH raw water hardness m ³ /h **	1,5	2,5
Maximum continuous water flow blending to 8 °dH at 20 °dH raw water hardness * m ³ /h **	2,5	4,2
Pipe connection	1"	1"
Salt solution and storage tank content l	2 x 78	2 x 78
Order - Number	8390130	8390131

Operating pressure min/max 3/6 bar, power supply 230 V/50 Hz
Capacity and salt consumption same as valid for mono unit.

* External blending valve required
** At optimal salt setting

The Classic Softening Method

Softening using the Ion Exchange Method



Type JM 2 - 3 WZ-P

Parallel units / water-meter controlled:
JM 2 - 6 WZ-P

Field of application mainly in the Sanitary Technique (Partial softening with short-run peak consumption).

Scope of Supply: same as for the water-meter controlled duplex units, however, both tanks operating in parallel, with contact water meters and two salt solution- and storage-tanks.

Type	JM 2 WZ-P	JM 3 WZ-P	JM 4 WZ-P	JM 6 WZ-P
Temporary peak flow rate m ³ /h	4	6	8	12
Maximum continuous flow rate				
Residual hardness < 0,1 °dH at 20 °dH raw water hardness m ³ /h **	1,5	2,5	4	5
Maximum continuous water flow blending to 8 °dH at 20 °dH raw water hardness * m ³ /h **	2,5	4,2	6,6	8,3
Pipe connection	1"	1"	1½"	1½"
Salt solution and storage tank content l	2 x 78	2 x 78	2x 200	2x 300
Order - Number	8390067	8390068	8390069	8390070

Operating pressure min/max 3/6 bar, power supply 230 V/50 Hz
Capacity and salt consumption same as valid for mono unit.

* External blending valve required

** At optimal salt setting



The Classic Softening Method

Softening using the Ion Exchange Method



Type JM 6 D

JUDO Softening Units JUDOMAT 2 - 10 D

Type JM 2 - 10 D

For the softening of clear, colourless, iron-free and manganese-free water. As a Duplex unit with internal connecting piping and automatic switching-over of the unit.

Scope of Supply: Two filter tanks, made of fibreglass reinforced Polyester, filter fillings of high performance ion exchange resin suitable for use with foodstuffs. Central control valve water-meter controlled, salt solution- and storage-tank with lid, made of high-impact-resistant plastic, power supply 230 V/50 Hz.

Type	JM 2 D	JM 3 D	JM 4 D	JM 6 D	JM 10 D
Continuous water flow rate at residual hardness < 0,1 °dH m ³ /h *	1,5	2,5	4,0	6,0	10,0
Continuous water flow rate, when blended to 8 °dH * residual hardness m ³ /h **	2,5	4,2	6,7	10	16,7
Pipe connection	1"	1"	1"	1½"	1½"
Nominal capacity at complete salt-setting °dH x m ³	60	100	200	300	500
Salt consumption at complete salt-setting kg	3,3	5,5	11	16,5	27,5
Nominal capacity at economical salt-setting °dH x m ³	45	75	150	225	375
Salt consumption at economical salt-setting kg	1,8	3,0	6,0	9,0	15,0
Required space					
length	1.100	1.100	1.650	2.200	2.600
width	1.000	1.000	950	1.100	1.300
height	1.100	1.100	1.150	1.850	1.550
Salt solution- and storage-tank content l	78	78	200	300	500
Order - Number	8390127	8390128	8390129	8390036	8390037

* Relating to 20 °dH raw water hardness and complete salt-setting, operating pressure min./max. 3/6 bar

** External blending valve required



Type JM 60 Z-HW

JUDO Hot Water Softening Units JUDOMAT 60 - 200 Z-HW

Type JM 60 - 200 Z-HW

Single unit for the softening of clear, colourless, iron-free and manganese-free high-temperature water up to 70 °C.

Scope of Supply: Vessel made of stainless steel, filling of high-performance ion-exchange resin suitable for use with foodstuffs. Central control valve for an automatic time-controlled regeneration, salt solution- and storage tank with lid, made of high-impact-resistant plastic, power supply 230 V/50 Hz.

Type	JM 60 Z-HW	JM 200 Z-HW
Capacity °dH x m ³	60	200
Water flow rate normal/maximum m ³ /h	1,5 - 2,1	2,3 - 3,5
Pipe connection	1"	1"
Salt solution- and storage-tank l	100	200
Salt consumption kg/regeneration	3,5	12
Order - Number	8334550	8334551

The Classic Softening Method

Softening using the Ion Exchange Method



Type JM-DX 1000 E

JUDO Softening Units JUDOMAT DX 1000 - 2000

Single units / water-meter controlled:
JM-DX 1000 - 2000 E

Scope of Supply: One ion exchange resin tank, made of glass fibre reinforced Polyester with plastic nozzles, central control valve for an automatic regeneration, contact water

meter, filter filling consisting of high performance ion exchange resin suitable for use with foodstuffs, salt solution- and storage tank with lid, made of high-impact-resistant plastics, intermediate support, brine valve, suction line.

Type	JM-DX 1000 E	JM-DX 1500 E	JM-DX 2000 E
Maximum water flow rate m ³ /h	10	15	20
Pipe connection	DN 40	DN 50	DN 65
Capacity at economical salt setting °dH x m ³	450	590	1.110
Salt consumption kg/regeneration	20	26	49,5
Salt solution tank content l	500	500	800
Order - Number	8530015	8530016	8530017



Type JM-DX 2000 D

Duplex units / water-meter controlled:
JM-DX 1000 - 2000 D

For continuous soft water removal without interruption (alternate operation).

Scope of Supply: Same as water-meter controlled single unit, however, equipped with two ion exchange resin tanks, internal connecting piping and automatic switching over to the filter, being in reserve.

Type	JM-DX 1000 D	JM-DX 1500 D	JM-DX 2000 D
Maximum water flow rate m ³ /h	10	15	20
Maximum continuous flow rate at 20 °dH - Residual hardness < 0,1 °dH m ³ /h - when blended to 8 °dH * m ³ /h	7 12	9 15	17 28
Pipe connection	DN 65	DN 65	DN 80
Salt solution tank content l	2 x 500	2 x 500	2 x 800
Order - Number	8530018	8530019	8530014

* External blending valve required



Type JM-DX 2000 P

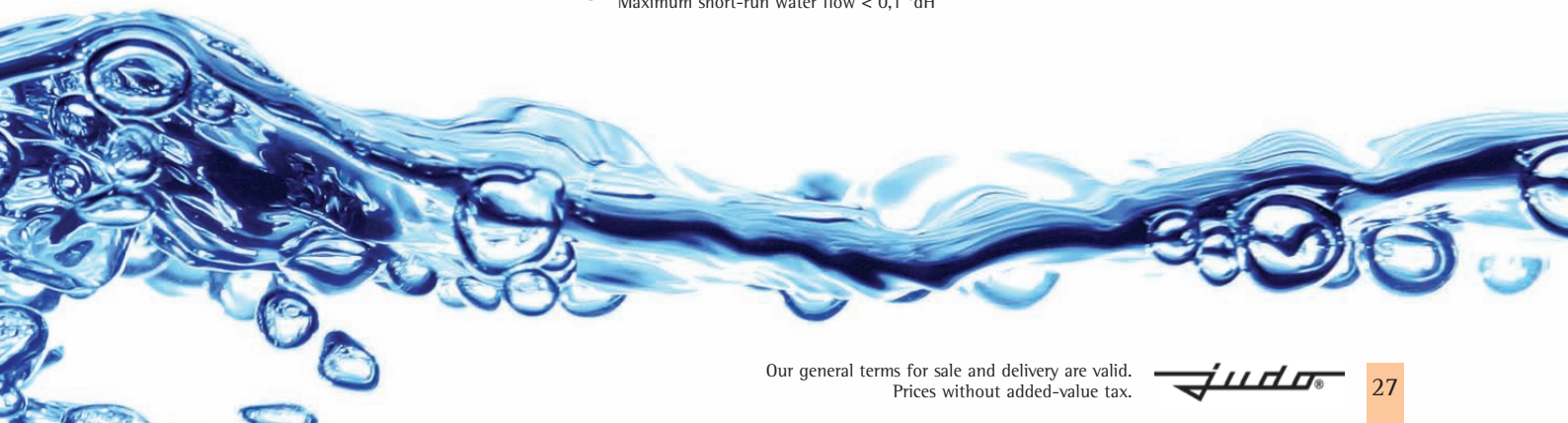
Parallel units / water-meter controlled:
JM-DX 1000 - 2000 P

Application principally in the Sanitary Technique (partial softening with short-run peak consumption).

Scope of Supply: Same as for quantity controlled duplex units, however, both tanks operating in parallel, with two contact water meters and two salt solution and storage tanks.

Type	JM-DX 1000 P	JM-DX 1500 P	JM-DX 2000 P
Maximum water flow rate m ³ /h *	20	30	40
Pipe connection	DN 65	DN 80	DN 100
Salt solution tank content l	2 x 500	2 x 500	2 x 800
Order - Number	8530020	8530021	8530022

* Maximum short-run water flow < 0,1 °dH



The Classic Softening Method

Softening using the Ion Exchange Method



Type JM-DX 1000 - 2000 T

Triplex units / water-meter controlled:
JM-DX 1000 - 2000 T

Application for continuous soft water removal with high removal performance.

Scope of Supply: Same as for water-meter controlled duplex units, however, with three tanks, two of them operating in parallel, one in state of regeneration, respectively stand-by, equipped with three contact water meters, and three salt solution and storage tanks, potential-free contact for remote control included.

Type	JM-DX 1000 T	JM-DX 1500 T	JM-DX 2000 T
Maximum water flow rate m ³ /h	20	30	40
Maximum continuous flow rate at 20 °dH - residual hardness < 0,1 °dH m ³ /h	14	18	34
- when blended to 8 °dH * m ³ /h	24	30	56
Pipe connection	DN 65	DN 80	DN 100
Salt solution tank content l	3 x 500	3 x 500	3 x 800
Order - Number	8530023	8530024	8530025

Capacity and consumption same as for mono unit

* External blending valve required



Type JM 30 KB

JUDO Compact Softening Units JM 30 - 100 KB

Type JM 30 - 100 M-KB

Scope of Supply: Well designed compact softener with built-in GRP-vessel with down tube and plastic filter nozzles, filling of high quality monosphere ion-exchange resin, central control valve for automatic regeneration, built-in blending device, microprocessor control with LCD-display, built-in salt storage and brine solution tank with filtration tissue, suitable for salt tablets and fine salts, brine valve and suction line, 230 V/50 Hz adapter.

Water-meter controlled single-unit
JM 30 - 100 M-KB

Water-meter controlled regeneration, forced regeneration interval possible; (Option: resin chlorination device combined with no salt detector JCLE 3, potential free faulty contact JSMP 2).

Type	JM 30 M-KB	JM 45 M-KB	JM 60 M-KB	JM 100 M-KB
Maximum water flow rate m ³ /h	1	1,5	2	3
Pipe connection	1"	1"	1"	1"
Exchange capacity at optimal salt setting °dH x m ³	30	45	60	100
Salt consumption at optimal salt setting kg/regeneration	2	3	4	6
Salt storage volume l	21	21	50	50
Measurement				
width mm	390	390	390	390
length mm	655	655	655	655
height mm	625	625	1085	1085
Order - Number	8390112	8390113	8390114	8390115

Accessories

Description	Type	Order-Number
By-pass valve (installed)		8395023
Internal by-pass valve		8395021
Connection		1610483
Cloth for fine salt		1610582
JUDO Disinfection and no salt detector device According to NaCl electrolysis method, combined with no salt alarm displayed at the control panel, for JM 30 - 60 K.	JCLE 3	8395017
JUDO Faulty indication	JSMP 2	8390075

The Classic Softening Method

Softening using the Ion Exchange Method



Type Aqua-Dania

JUDO Softening Unit Aqua-Dania

Type Aqua-Dania

Scope of Supply: Prefabricated duplex softening unit with operating and installation manual as well as rotary flange with 1" male thread for the mounting of flexible hoses.

Type	Aqua-Dania
Nominal flow rate m ³ /h	2
Short-run maximum peak flow m ³ /h	3,5
Pipe connection	1"
Salt storage tank content block / tablet salt kg	45/35
Salt consumption per regeneration g	400
Operating pressure maximum bar	7
Minimum flow pressure at nominal flow rate bar	2
Operating temperature maximum °C	30
Order - Number	8200019



Type JQS-U

JUDO Softening Units QUICK-SOFT UNO and QUICK-SOFT DUO

Type JQS-U and JQS-D

Scope of Supply: Water softening unit for the domestic water technique as a single aggregate (JQS-U) or duplex aggregate (JQS-D) consisting of: one (JQS-U) or two (JQS-D) glass fibre reinforced filter tank, fil-

ter fillings consisting of high-quality monospheric ion exchange resin, food grade approved, water-meter controlled, integrated disinfection device with platinum covered titanium electrodes, salt solution and storage tank, built-in rotary flange with patented bayonet connector and fittings included.

Type	JQS-U	JQS-D
Nominal flow rate m ³ /h	1,2	1,7
Short-run maximum peak flow m ³ /h	2,0	3,5
Pipe connection	1"	1"
Installation length mm	195	195
Pressure loss at nominal flow rate and softening from 20 °dH to 8 °dH bar	0,7	0,5
Salt storage tank content kg	50	50
Salt consumption per m ³ softening from 20 °dH to 8 °dH	0,44	0,44
Operating pressure maximum bar	8	8
Minimum flow pressure at nominal flow rate bar	2	2
Regeneration duration minutes	9	15
Order - Number	8200319	8200320



The Classic Softening Method

Accessories



Type JAV 1"

Direct Connection Set 1" with Blending Device

Description	Type	Order-Number
JUDO Automatic Blending Device 1" with two shut-off valves, hydraulic control, mixed water flow rate 0,1 - 4 m ³ /h	JAV 1"	8735101
S-connection for JAV 1" for the installation without the flexible hoses		8395014
JUDO Set of flexible hoses 1" (2 pieces) DVGW-tested, PN 10, Length 500 mm	JAS 1" 500 Set	8735181

Connector to JUDO QUICKSET-E System 1¼"

Description	Type	Order-Number
JUDO QUICKSET-U quick assembly set for softening units with 1" connection, JQE 1¼" and single lever by-pass valve included	JQU 1¼"	8735179
JUDO Set of flexible hoses 1" (2 pieces) DVGW-tested, PN 10, Length 500 mm	JAS 1" 500 Set	8735181



Type JAV 1 1/2"

Direct Connection Set 1½" with Blending Device

Description	Type	Order-Number
JUDO Automatic Blending Device 1½" with two shut-off valves, hydraulic control, mixed water flow rate 0,2 - 10 m ³ /h	JAV 1½"	8735178
JUDO Set of flexible hoses 1½" (2 pieces) DVGW-tested, PN 10, Length 500 mm	JAS 1½" 500 Set	8735182



Type JAV 2"

Automatic Blending Devices

Description	Type	Order-Number
JUDO Automatic Blending Device 1" with two shut-off valves, hydraulic control, mixed water flow rate 0,1 - 4 m ³ /h	JAV 1"	8735101
S-connection for JAV 1" for the installation without the flexible hoses		8395014
JUDO Automatic Blending Device 1¼" hard water flow rate 0,2 - 8 m ³ /h	JAV 1¼"	8735202
JUDO Automatic Blending Device 1½" with two check valves/shut-off valves, hydraulic control, mixed water flow rate 0,2 - 10 m ³ /h	JAV 1½"	8735178
JUDO Automatic Blending Device 2" hard water flow rate 5 - 15 m ³ /h	JAV 2"	8735102



Type JCLE

Accessories

Description	Type	Order-Number
JUDO Recirculation device to avoid the counter-ion effect concerning JUDOMAT DX 1000 - 2000	JUW 2	8735213
JUDO Disinfection device for JM 2 - 4 D	JCLE 2 E	8390038
JUDO Disinfection device for JM 2 - WZ-D, JM 2 - 4 WZ-P	JCLE 2 D	8390092
JUDO Disinfection device for JM 2 - 4 Z-E, JM 2 - 4 WZ-E	JCLE 2	8395017
JUDO Disinfection device for JM-DX 1000 - 2000 D/P, JM 6 WZ-P	JCLE 5 D	8395036
JUDO Disinfection device for JM-DX 1000 - 2000 E, JM 6 - 10 D	JCLE 5 E	8395037
JUDO Salt deficiency indication 230 V/50 Hz (not retrofittable)	JSMA	8390002
JUDO Measuring Instrument for the determination of the total hardness by means of the complexometric titration	Type A	8742119
JUDO Regenerating salt in form of tablets 25 kg, minimum order quantity 4x 25 kg (1 packing unit)		8839101
JUDO Automatic by-pass valve 1" for softeners, hard water flow maximum 10 m ³ /h to cover peak consumption		8395010

JUDO QUICKSET

Mounting Accessories



Type JQE

JUDO QUICKSET-E

Type JQE 3/4" - 2" female thread

Type JQE 1/2" - 2" male thread with screw connection

Built-in rotary flange for the rough mounting of JUKO-LF, PROF1+, PROFIMAT+, JSP, JPM, JBQ, JJP, BST 2000, BST-C/-CA, JU-WEL.

Design with female thread	Installation length mm	Order - Number
JQE 3/4"	90	8250010
JQE 1"	90	8308011
JQE 1 1/4"	110	8735211
JQE 1 1/2"	136	8735203
JQE 2"	142	8735204

Design with male thread	Installation length mm	Order - Number
JQE 1/2" with screw connection	180	8250014
JQE 3/4" with screw connection	180	8250015
JQE 1" with screw connection	195	8250016
JQE 1 1/4" with screw connection	230	8250017
JQE 1 1/2" with screw connection	252	8250032
JQE 2" with screw connection *	280	8250033

* Suited for hot water up to 90 °C and for the rough mounting JHF/JHF-T 1 1/2" and 2"



Type JQR

JUDO QUICKSET-Series

Type JQR
for JUDO QUICKSET-E 3/4" - 1 1/4"

The JUDO QUICKSET-Series with patented bayonet connector is used when space problems don't make possible the installation of

a second quick-mounting set QUICKSET-E, respectively when an additional JUDO Water treatment device shall be installed into an existing water pipe (series connection). Pressure loss at 5 m³/h - 0,06 bar, PN 16.

QUICKSET-Series JQR	Order - Number	8250041
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Type JQX

JUDO QUICKSET-X

QUICKSET-X by pass valve	Order - Number	8735210
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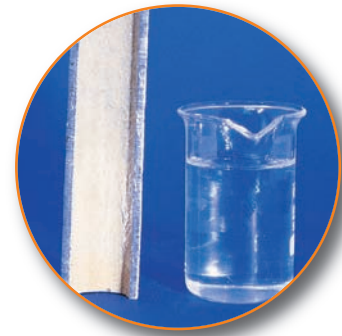
JUDO Dosing Technique

The Reliable Addition of Active Agents

Through the addition of dosing agents the quality of the available water can be effected on. It is, for example, possible to stabilize hardeners, to develop protective layers, furthermore to bind carbon dioxide and oxygen in the boiler water, as well as to eliminate germs and to avoid algae growth.



Before:
Pitting, rust and brown water



Afterwards:
Formation of a protective layer and clear water

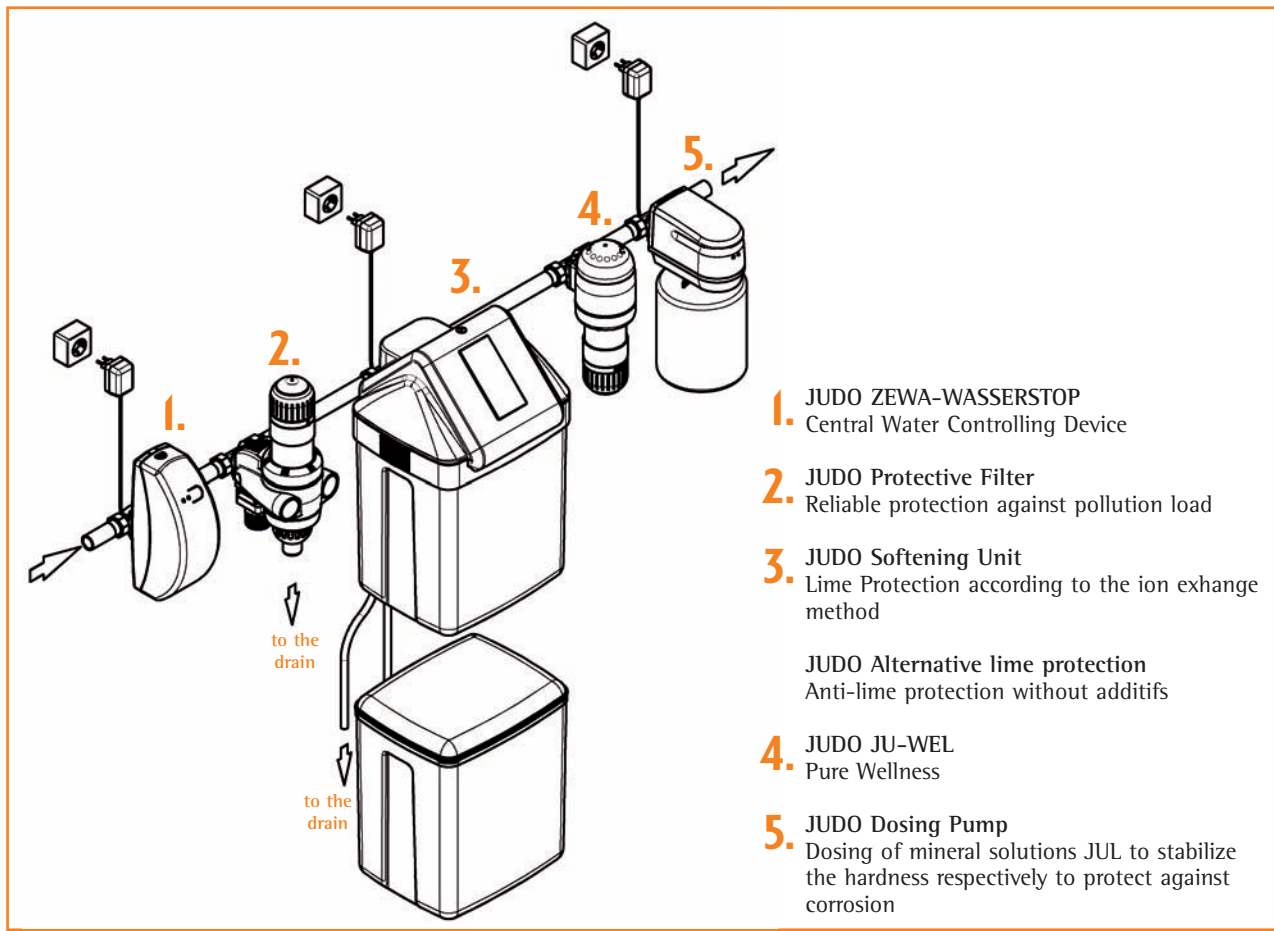
	JULIA Dosing Pumps	JULIA-Industrial	WADOS Dosing Pumps	UNIDOS Dosing Pumps
Use in the Domestic Water Treatment for the dosing of JUL-mineral solutions to stabilize the hardness respectively to protect against corrosion.	●			
For the conditioning of:		●	●	●
<ul style="list-style-type: none"> Hot water boiler and high-temperature water boilers Steam boiler Cooling- and air conditioning systems Industrial Requirements 		●	●	●

Available:

In water-meter controlled design	●	●	●	
With universal external control		●		●

Installation scheme

JUDO Dosing Pump



Example of an Installation scheme



JUDO JULIA Dosing Pumps

The Safe Protection against Corrosion and Lime Deposits



Type JJP 4



Type JJP 10

JUDO Dosing Pump JULIA

Type JJP for Mineral Solutions JUL for the Treatment of Drinking Water according to DIN 19635

Scope of Supply: Self-deaerating piston dosing pump (PN 10) with low-wear electro synchronous motor drive, dosing volume adjustable, contact-free electronic proportional control device with operating and trouble indication. Empty alarm indicated by a light-emitting diode and buzzer, dry run protecti-

on, water meter with HALL effect sensor, with integrated injection valve and dosing hose, connecting cable- and plug power supply unit. Built-in rotary flange with patented bayonet connector, with screw connection and mounting lid. For the installation into cold water conduits.

Operating pressure maximum 10 bar,
Operating temperature maximum 30 °C,
Power Supply 230 V/50 Hz.

Type	JJP 3 **	JJP 4 **	JJP 10	JJP 25	JJP 60
Working range according to DIN 19635 lower/upper work limits m ³ /h	0,02 - 4	0,02 - 4	0,07 - 11	0,08 - 25	0,08 - 25
Suitable for a maximum water flow m ³ a month *	30	60	200	400	1.000
Pipe connection	1"	1"	1¼"	1½"	2"
Pressure Loss at the upper work limit bar	0,7	0,7	0,8	0,7	0,7
Container Capacity l	3	6	25	25	60
Metering Volume per fill m ³ water	24 - 40	48 - 80	200 - 330	200 - 330	480 - 880
Installation Length mm	195	195	230	252	280
Order - Number	8309070	8309071	8309072	8309073	8309074

* If there are no consumption data available, a water consumption of 10 m³ as per month and accommodation unit can be calculated according to the DVGW data sheet W504, passage 4,22. The water consumption of one person amounts to 3,5 - 7 m³ a month depending on the equipment of the flat.

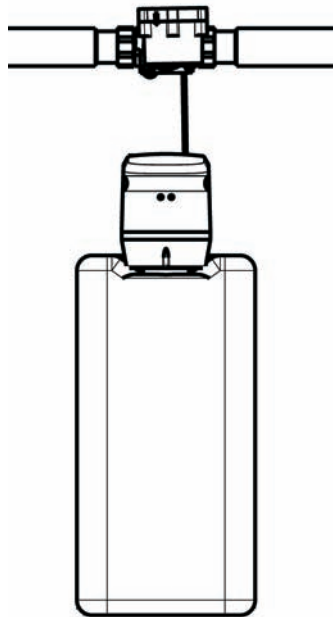
** With empty container

*** In combination with JUL-H

Surcharge for potential free contact for the indications „trouble“ and „empty“ (not retrofittable) on request.

JUDO Industrial Dosing Pumps JULIA

Opening new options in cooling/heater water conditioning



Type JJWT 10 K

JUDO JULIA JJWD and JJWT Dosing Pump Units

Type JJWD, JJWT

For the quantity-proportional dosing of non-outgasing chemical solutions.

Scope of Supply: self-venting piston dosing pump, equipped with synchronous motor, dosing volume stepwise adjustable. Chemical solution and storage tank, made of plastic, with hand mixer, contact water meter with integrated cold water injection valve and dosing hose [2 metres]/diameter [4 mm], suction lance with dry-run protection, built-in rotary flange [JQE], with bayonet connec-

tor and screw connection for the installation into the cold water line, cable and plug-in power supply [internal low voltage], dosing- and trouble indication, potential free general fault signal [empty signal, respectively pump fault, JULIA signal communication cable is required], power supply [230 V/ 50 Hz].

Type JJWT: as before, however, without dosing tank, for the direct taking from the [25 l] transport vessel.

KH: cold water injection valve, hand mixer
K: cold water injection valve

Type	JJWD 10-40 KH	JJWT 10 K
Peak flow maximum Q _{max} m ³ /h	10	10
Pressure loss at a maximum flow of bar	0,9	0,9
Permanent flow Q _n m ³ /h	6	6
Pressure loss at permanent flow Q _n bar	0,35	0,35
Flow Q _{min} l/h	70	70
Pipe connection	1¼"	1¼"
Dosing Pump, type	1,1-10	1,1-10
Maximum counter pressure bar	10	10
Dosing tank, volume litres	40	-
For transport vessel litres	-	25
Order - Number	8330114	8330115



Type JJUD

JUDO JULIA JJUD and JJUT Dosing Pump Units

Type JJUD, JJUT

For the dosing of non-aggressive, and non-outgasing chemical solutions.

Scope of Supply: self-venting piston dosing pump, equipped with synchronous motor, dosing volume stepwise adjustable. External activation via voltage supply. Chemical solution and storage tank. Made of plastic with hand mixer, hot water injection valve [1/2"], cooling zone with dosing hose of 2 metres length, suction lance with dry-run protecti-

on, cable and plug-in power supply [internal low voltage], dosing- and trouble indication, potential free general fault signal [empty signal, respectively pump fault, JULIA signal communication cable is required], power supply [230 V/50 Hz].

Type JJUT: as before, however, without dosing tank, for the direct taking from the [25 l] transport vessel.

HH: hot water injection valve, hand mixer
H: hot water injection valve

Type	JJUD 1,1-40 HH	JJUT 1,1 H
Maximum dosing capacity l/h	1,1	1,1
Dosing pump, type	1,1-10	1,1-10
Maximum counter pressure bar	10	10
Dosing tank volume litres	40	-
For transport vessel litres	-	25
Order - Number	8330112	8330113



JUDO Industrial Dosing Pumps JULIA

Opening new options in cooling/heater water conditioning

Accessories

JULIA Signal communication cable for potentialfree outlet	Order - Number:	8340067
JULIA Coupling set for the extension of the dosing hose	Order - Number:	8340068
Dosing Hose, Type JDS-T 4/2 (Teflon), coupling set required	Order - Number:	8340069

JUDO Mineral Solutions JUL

The Safe Protection against Corrosion and Lime Deposits



Type Mineral tablets



Type Solution device



Type JUL, 60 litres

JUDO Mineral Tablets for the producing of mineral solution JUL

No voluminous packing material. The packaging consists mainly of ecologically compatible cardboard. The plastic share could be reduced by more than 96 %.

Cardboard tube for		3 litre	6 litre	25 litre
Quantity minimum piece		4	2	1
Order - Number	JUL-W	8600017	8600018	8600011
Order - Number	JUL-H	8600019	8600020	8600008

Solution device for the producing of the mineral solution	Order - Number	8130100
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JUDO Mineral Solutions JUL

For drinking water according to the water quality regulations for the treatment of drinking water.

Dosing: approximately 75 - 125 ml/m³

Mineral solutions JUL for the prevention against water- and electrochemical corrosions and scale.

litre		3	6	25	60
Quantity of the cans per packing unit		4	2	1	1
Order - Number	Type SW	8600021	8600022	8840104	8840107
Order - Number	Type W	8600024	8600025	8840114	8840117
Order - Number	Type H	8600027	8600028	8840134	8840137
Order - Number	Type C	8600030	8600031	8600003	8600002

- Type SW: for galvanised pipes and aggressive waters in the hardness range 1
- Type W: for galvanised pipes in the hardness range 1 + 2 and behind softeners
- Type W: for mixed installations (galvanised/copper) behind softeners
- Type H: for the hardness stabilization in the hardness range 3 + 4
- Type C: for copper pipes after softeners

JUDO WADOS Dosing Pump Units

Watermeter controlled Dosing Pump Units

CE



Type JWT-K

JUDO Dosing Pump Units JWT 5 - 100

Type JWT 5 - 100

For the dosing of non-outgasing chemical solutions in proportion to quantity, taken directly from the transport vessel, control effectuated by means of contact water meter.

Scope of Supply: Membrane dosing pump, self-priming system, dosing volume stepwise

adjustable, contact water meter, vessel suction piece with dry-run protection, injection valve R 1/2" with 2 m dosing hose and fixing bracket.

Operating temperature maximum 35 °C
Power supply 230 V/50 Hz

Type JWT		5	10	20	30	100
Pressure Loss at normal flow bar		0,15	0,25	0,20	0,20	0,10
Water flow rate	Qn m ³ /h	2,5	6	10	15	40
	Qmax m ³ /h	5	12	20	30	110
	Qmin m ³ /h	0,03	0,07	0,10	0,10	0,275
Impulse repetition l		0,5	1	2	3	5
Pipe connection		3/4"	1"	1 1/2"	DN 50	DN 80
Dosing Pump, type		1,6 - 10	1,6 - 10	6,0 - 8	6,0 - 8	9,0 - 6
Maximum counter pressure bar		10	10	8	8	6
JWT-K	Complete unit with injection valve / cold water					
Order - Number		8425500	8425501	8425502	8425503	8425505
JWT-H	Complete unit with injection valve / hot water					
Order - Number		8330037	8330038	8330039	8330040	8330041

All dosing pumps with built-in dry run protection.

Exit for potential-free indication „empty“ signal (communication cable Order - Number 8340027 required).

JUDO Safety Tub JSW 1 for the housing of the complete JUT- or JWT dosing unit, transport vessel included, stable and solid design up to 60 litres, dimensions 650 x 470 x 300 mm.

Order - Number 8690026

CE



Type JWD-KH

JUDO Dosing Pump Units JWD 5-50 to 100-200

Type JWD 5-50 to 100-200

For the dosing of non-outgasing chemical solutions in proportion to quantity.

Scope of Supply: Membrane dosing pump, self-priming system, dosing volume stepwise adjustable, contact water meter, chemical-

solution- and storage-tank, made of polyethylene with handmixer, dry-run protection, dosing pump mounted on the tank, injection valve R 1/2", internal casing with all the required fittings, as well as a dosing hose of 2 m length.

Operating temperature maximum 35 °C
Power supply 230 V/50 Hz

Type JWD		5-50	10-50	20-100	30-100	100-200
Pressure Loss at normal flow bar		0,15	0,25	0,20	0,20	0,10
Water flow rate	Qn m ³ /h	2,5	6	10	15	40
	Qmax m ³ /h	5	12	20	30	110
	Qmin m ³ /h	0,03	0,07	0,10	0,10	0,275
Impulse repetition l		0,5	1	2	3	5
Pipe connection		3/4"	1"	1 1/2"	DN 50	DN 80
Dosing Pump, type		1,6 - 10	1,6 - 10	6,0 - 8	6,0 - 8	9,0 - 6
Maximum counter pressure bar		10	10	8	8	6
Tank capacity l		50	50	100	100	200
JWD-KH	Complete unit with injection valve / cold water, with handmixer					
Order - Number		8425561	8425562	8425565	8425566	8425567
JWD-HH	Complete unit with injection valve / hot water, with handmixer					
Order - Number		8330042	8330043	8330046	8330047	8330048

All dosing pumps with built-in dry run protection.

Exit for potential-free indication „empty“ signal (communication cable Order - Number 8340027 required).

JUDO Dosing Pump Units

For the Chlorine Dosing



Type JUD-C

JUDO Dosing Pump Units for the Chlorine Dosing

Type JWD-C 5-50 to 10-50

For the quantity-proportional dosing of chlorine solutions.

Version: self-venting dosing pump with innovative double dosing head and compact calibration device, dosing volume stepwise adjustable, chemical-solution and storage tank, made of plastic with hand mixer, contact water meter, cold water injection valve 1/2", 2 metres dosing hose, suction line with dry-run protection, potential free trouble signal / empty signal [empty signal cable required], power supply connection [230 V] [50 Hz] via protected contact plug.

Type JUD-C 1,0-50

For the Dosing of Chlorine Solutions.

Version: self-venting dosing pump with innovative double dosing head and compact calibration device, dosing volume stepwise adjustable, activation via voltage supply or contact input, chemical-solution and storage tank, made of plastic with hand mixer, cold water injection valve 1/2", and 2 metres dosing hose, suction line with dry-run protection, potential free trouble signal / empty signal [empty signal cable required], power supply connection [230 V] [50 Hz] via protected contact plug.

Type	JWD-C 5-50	JWD-C 10-50
Pressure loss at nominal bar	0,15	0,25
Water flow rate	Qn m ³ /h Qmax m ³ /h Qmin m ³ /h	6 12 0,07
Pulse sequence litres	0,5	1
Pipe connection	3/4"	1"
Dosing Pump, type	1,0-10 DK	1,0-10 DK
Maximum counter pressure bar	10	10
Dosing tank volume litres	50	50
Order - Number	8330075	8330111

Type	JUD-C 1,0-50
Maximum flow rate m ³ /h	1,0
Maximum counter pressure bar	10
Injectionvalve connection	1/2"
Dosing Pump, type	1,0-10 DK
Dosing tank volume litres	50
Order - Number	8330074

Liquid chlorine, type JFC-20	Order -	8822101
Inorganic, liquid chlorine product according to DIN EN 901, active chlorine content, approximately 15 %, in one-way can, 20 litres trading unit.	Number:	

JUDO UNIDOS Dosing Pump Units

Universal External Control Dosing Pump Units

CE



Type JUT-K

JUDO Dosing Pump Units JUT 1,6 - 9

Type JUT 1,6 - 9

For the dosing of non-outgasing chemical solutions.

Scope of Supply: Membrane dosing pump, self-priming system, dosing capacity to be adjustable stepwise (stroke length and fre-

quency) with dry-run protection, injection valve R 1/2", dosing hose 2 m, and fixing bracket. For the direct taking from the transport vessel of non-outgasing solutions by means of a suction lance.

Operating temperature maximum 35 °C
Power supply 230 V/50 Hz

Type JUT	1,6	6	9
Capacity of the dosing pump maximum l/h against maximum bar	1,6 10	6 8	9 6
Dosing Pump, type	1,6 - 10	6,0 - 8	9,0 - 6
JUT-K Complete device with injection valve / cold water			
Order - Number	8425568	8425572	8425575
JUT-H Complete device with injection valve / hot water			
Order - Number	8330010	8330011	8330012

All dosing pumps with built-in dry run protection.
Exit for potential-free indication „empty“ (Signal communication cable Order - Number 8340027 required).

CE



Type JUD-KH

JUDO Dosing Pump Units JUD 1,6-50 to 9-200

Type JUD 1,6-50 to 9-200

For the dosing of non-outgasing chemical solutions.

Scope of Supply: Membrane dosing pump, self-priming system, dosing capacity to be adjustable stepwise (stroke length and fre-

quency), chemical solution and storage-tank (vessel), made of plastic, dry-run protection, dosing pump mounted on the tank, internally cased with all required fittings, as well as dosing hose of 2 m.

Operating temperature maximum 35 °C
Power supply 230 V/50 Hz

Type JUD	1,6 - 50	6 - 100	9 - 200
Capacity of the dosing pump maximum l/h against maximum bar	1,6 10	6 8	9 6
Dosing Pump, type	1,6 - 10	6,0 - 8	9,0 - 6
Tank capacity l	50	100	200
JUD-KH Complete device with injection valve / cold water, with handmixer			
Order - Number	8425580	8425573	8425578
JUD-HH Complete device with injection valve / hot water, with handmixer			
Order - Number	8330013	8330016	8330019

All dosing pumps with built-in dry run protection.
Exit for potential-free indication „empty“ (Signal communication cable Order - Number 8340027 required).

JUDO Dosing Pump Units

Accessories



Type JZS U/E



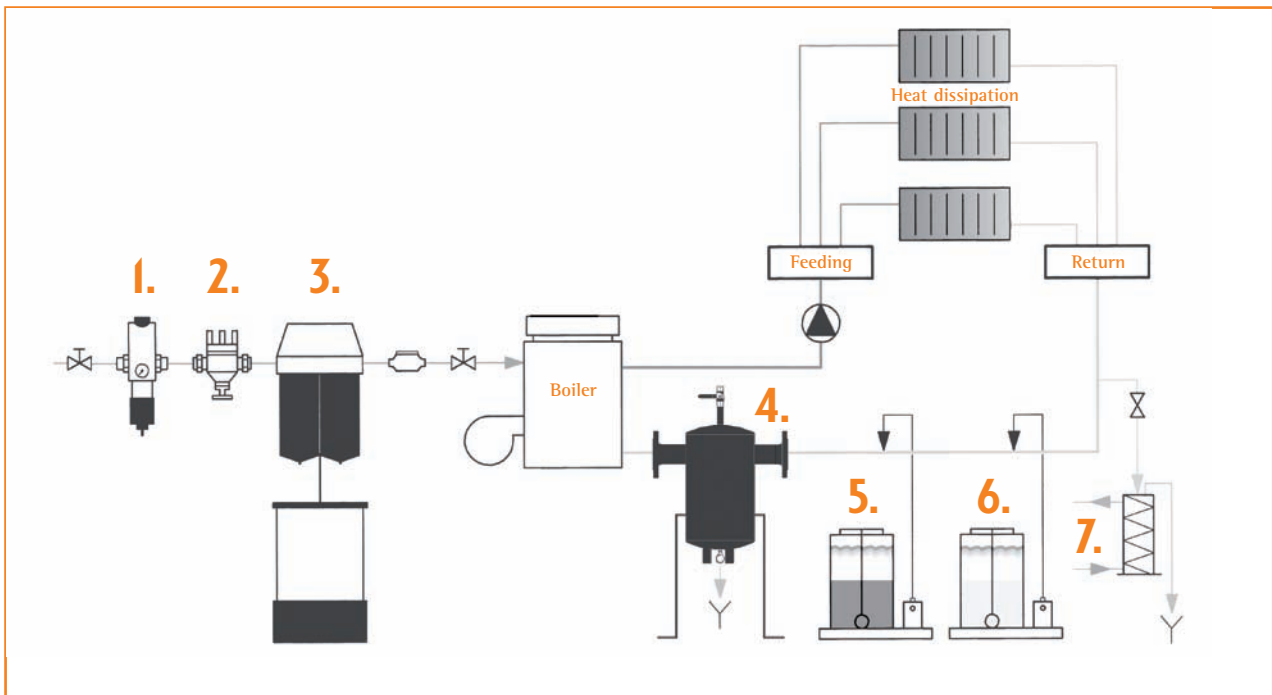
Type Control signal transmission cable

Accessories for the JUDO Dosing Pump Units

Description	Type	Order-Number
JUDO Timer for the Automatic switching on and switching off of: UNIDOS dosing pump units, electro-mixer. Electronical digital timer switch with LCD-indication, day's program, week's program, connection 230 V/ 50 Hz.	JZS U/E	8340020
JUDO Safety container for the up-taking of transport tanks (up to 100 l), solid design, 120 x 80 cm.	JSW 2	8690018
JUDO Empty Indication Transmission Cable Length 2 m, for the potential-free indication „empty“ (for example connection to the ZLT).		8340027
JUDO Control Signal Transmission Cable Length 1,5 m, for the external control of the UNIDOS Dosing Pump (for example contact watermeter) or approach via bleed-off JKAA-MV for dosing pump type 1,6 - 10, 6,0 - 8 and 9,0 - 6.		8340028
JUDO Dosing Hose (Teflon) PN 10	JDS-T 6/4 *	8725106
JUDO Dosing Hose (PVC) PN 10	JDS-T 12/6 *	8395011

* For the pump types: JDS-T 6/4 for 1,6 - 10
 JDS-T 12/6 for 9,0 - 6

Water Treatment for Warm Water Heating Systems according to VDI 2035



Water Treatment for Warm Water Heating Systems according to VDI 2035

Total Heating Capacity	Sum / alkaline earths	Total hardness
> 50 to ≤ 200 kW	≤ 2,0 mmol/l	≤ 11,2 °dH
> 200 to ≤ 600 kW	≤ 1,5 mmol/l	≤ 8,4 °dH
> 600 kW	≤ 0,02 mmol/l	≤ 0,11 °dH

Lime Protection in the filling and the make-up water:

1. JUDO Backwash Protective Filter according to DIN 1988 and DIN 19632 as well as pressure reducer in accordance with EN 1567
2. JUDO Pipe Disconnecter
3. JUDO Mobile Heating Filling Unit

JUDOMAT Softening Units

Corrosion Protection in the heating water:

4. JUDO FERROCLEAN for the separation of iron sludge
5. JUDO UNIDOS Dosing Pump Unit for the addition of JHL 2
6. JUDO UNIDOS Dosing Pump Unit for the addition of JNS

JUDO Dosing Agent JHL 2 * for alkalisng of boiler water and the oxygen binding capacity

JUDO Dosing Agent JNS for the oxygen binding

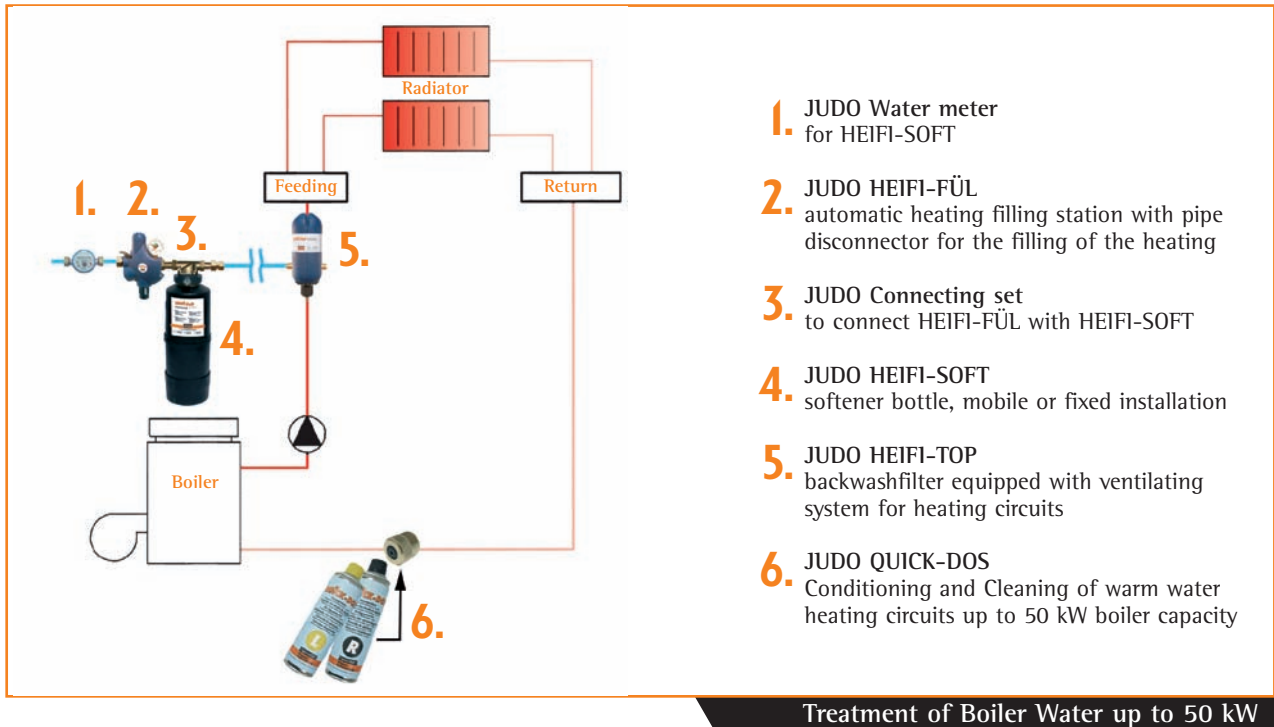
Analytics:

7. JUDO Sampling Cooler for the correct sampling of boiler feed water

JUDO Analysis Bag / Cabinet



VDI 2035 - New Demands on Heating Systems



Anti-Lime Protection in the Boiler Water

An improved use of energy and more compact heating transfer surfaces as well as higher hot water temperatures in order to reduce the risk of the bacteria Legionella lead to augmented damages caused by lime deposits in the heating installations. That is why apart from the new VDI

2035 also the guaranty conditions of the boiler manufacturers (for example concerning thermae fixed on the wall) require maximum limits concerning the water hardness.

With the JUDO HEIFI-SOFT you'll get a system, suited for mobile or stationary use for an

optimal water hardness concerning one-family houses and multiple dwelling units.

For advanced requirements of the VDI 2035 concerning larger installations, the complete JUDO product range for the classic boiler water conditioning is at your disposal.

Corrosion Protection in the Heating Circuit

Even smallest quantities of oxygen together with high water temperatures lead obligatorily to corrosion in heating installations.

JUDO offers, depending on the boiler performance, individually co-ordinated protective measu-

res in accordance with VDI 2035. For a one family-house and multiple dwelling units QUICKDOS-L, QUICKDOS-R and HEIFI-TOP are the perfect team for the cleaning and the corrosion prevention in heating installations.

For advanced requirements of the VDI 2035 concerning larger installations, the complete JUDO product range for the classic boiler water conditioning is at your disposal.

Sludge Removal Innovative and highly-efficient protection of fittings and appliances

In closed Heating- and Cooling-Systems deposits, consisting of iron sludge cause system failures and great cost concerning maintenance and sanitation.

The JUDO FERROCLEAN-sludge separators complete our HEIFI-TOP-series above DN 50.

They solve this problem, by the accretion of iron sludge (magnetite) to high-performance magnets. This sludge, after the deactivating of the magnets, can be easily removed by flushing it out. An integrated magnesium-

protection anode binds abundant oxygen on the spot (no deposit effect). The cleaning can take place either by system-water or external water supply, via the integrated raw water connection, at best by means of the heating-refill unit HEIFI-FÜL.

The mounting is effected preferably directly before the components to be protected (for example before the boiler, the heat exchanger, and the refrigerating machine).



Contaminated circulation water



After the introducing of the magnet the whole sludge is bound within a very short space of time, and can be flushed out



Type JFS

JUDO Sludge Separator FERROCLEAN DN 65 - 200

For the separation and flushing of magnetite sludge (Fe₃O₄) and hydrodynamically optimized venting including manganese-anode for oxygen binding.

For use in water temperatures from 6 - 130 °C

Scope of Supply:

Welded steel container (PN 16) with flanges and supports, 1 set of high-efficiency magnets, manganese anode, raw water inlet connection, flushing tap 1", quick vent unit (vents at up to max. 10 bar).

Type	Water flow rate m ³ /h	Nominal diameter mm	Pressure loss bar	Installation length mm	Order - Number
JFS DN 65	12	65	0,0012	575	8055050
JFS DN 80	17	80	0,0018	575	8055051
JFS DN 100	30	100	0,0022	575	8055052
JFS DN 125	50	125	0,0032	575	8055053
JFS DN 150	80	150	0,004	575	8055054
JFS DN 200	130	200	0,005	575	8055055

Please note: For the correct cleaning, in the case of a system-integrated backwashing, minimum one shut-off valve is required, to be mounted in flow direction after the separator. Concerning the cleaning with fresh water via the integrated raw water connection, requirements as per follows: two shut-off valves, before and behind the separator as well as a pipe disconnecter in the fresh water feed line. For that we recommend the application of our refill-unit HEIFI-FÜL with integrated pipe disconnecter up to risk classification level 4, Order - Number 8060040 (see page 44). If necessary, a by-pass for the interruption-free service has to be installed.

Accessories and Operating Material

Description	Order - Number
Insulation for JFS DN 65	8057501
Insulation for JFS DN 80	8057502
Insulation for JFS DN 100	8057503
Insulation for JFS DN 125	8057504
Insulation for JFS DN 150	8057505
Insulation for JFS DN 200	8057506
Magnesium Anode	8430229

Water Treatment for Hot Water Heating Systems

according to VDI 2035



Type JHF-F

JUDO Heating-Refill Unit HEIFI-FÜL

Type JHF-F 3/4"

According to DIN/EN 1717 not any longer permitted in the future: the temporary connecting of the heating circuit to the drinking water system. That can be helped by means of the refill unit JUDO HEIFI-FÜL. Furthermore it admits the backwashing of the HEIFI-VENT and the HEIFI-TOP with fresh water (HEIFI-KOM).

Scope of Supply: The HEIFI-FÜL Refill-unit consists of a spheric valve, pressure reducer, manometer and pipe disconnecter, type BA. With the aid of the mounted pressure reducer the pressure will be kept constant, and in the case of falling pressure an automatic refilling will take place. Ideal in connection with the heating backwash-filter HEIFI-TOP, respectively HEIFI-VENT, the backwashing is then effected with fresh water.

Type	JHF-F
Pipe connection	3/4"
Refill-capacity litres/hour	aprox. 720
Maximum operating temperature °C	65
Maximum heating water temperature °C	90
Order - Number	8060040

JUDO Backwash Filter with Deaeration System HEIFI-TOP



Type JHF-T

Type JHF-T 3/4" - 2"

Scope of Supply: Housing made of brass, integrated newly-developed sludge- and micro-air-bubbles catch system, equipped with circular brush, made of stainless steel wire, integrated high-quality rapid air-vent,

large handwheel with spherical valve for the operation of the backwashing with simultaneous mechanical cleaning of the brush body, built-in rotary flange, made of brass with patented threaded bayonet connection, threaded connection according to DIN 2999, thermal insulation.

Type	JHF-T	JHF-T	JHF-T	JHF-T	JHF-T
Pipe connection	3/4" *	1"	1 1/4"	1 1/2" **	2" **
Nominal flow rate m ³ /h	2	3	4	6	8
Pressure loss at nominal flow (at 80 °C) bar	0,02	0,06	0,10	0,06	0,10
Up to a heat capacity of kW	40	60	100	150	200
Max. temperature of the feed water °C	90	90	90	90	90
Operating pressure maximum bar	10	10	10	10	10
Installation length mm	180	195	230	252	280
Order - Number	8060030	8060031	8060032	8060033	8060034

* JHF-T 1" with QUICKSET-E 3/4"

** 2x JHF-T 1" or 1 1/4" with parallel built-in rotary flange

Corrosion Protection for Heating Systems

according to VDI 2035



Type JQD-L and JQD-R

JUDO QUICK-DOS

Type JQD-L, JQD-L2 and JQD-R

Quick and simple conditioning by means of QUICK-DOS L, L2 and R in the practical 400 ml can. The dosing of the heating installation is effected by means of the adapter JUDO QUICK-AN.

Type JQD-AN

Adapter with female thread 3/4" for the connection with KFE-tap for the filling of the installation with JUDO QUICK-DOS.

Dosing Agent	JQD-L	JQD-L2	JQD-R *
Content 400 ml, sufficient approximately for system content l	80	aprox. 40	80
Shipping unit pieces	carton 9x 400 ml	carton 9x 400 ml	carton 9x 400 ml
Order - Number	8838185	8838195	8838186

* Approximately 4 weeks after addition JQD-R the system has to be flushed carefully - it can be that a multiple application with JQD-R becomes necessary. In the case of a clean system the refilling and addition of JQD-L or JQD-L2 is effected.

JQD-AN (shipping unit 5 pieces)	Order - Number	8838188
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JUDO THERMODOS

Type JTH-L and JTH-R

For the conditioning and cleaning of hot water heating circuits with a heat output below 100 kW.

Type JTH-L: for the conditioning of heating water, hardness stabilizing, dispergating and film forming. Addition of approximately 1 l per 200 l system content.

Type JTH-R: for the cleaning of older hot water heating circuits. Addition of approximately 1 l per 200 l system content.



Type JTH-L and JTH-R

Dosing Agent	JTH-L	JTH-R *
Can size l	1	1
Shipping unit pieces	carton 6x 1 l	carton 6x 1 l
Order - Number	8650011	8650010

* Approximately 4 weeks after addition JTH-R the system has to be flushed carefully - it can be that a multiple application with JTH-R becomes necessary. In the case of a clean system the refilling and addition of JTH-L is effected.

JUDO THERMODOS Dosing Unit

Type JTH-D

For the simple and safe addition of JTH-L and JTH-R dosing solutions.

Scope of supply: 5 l plastic vessel, resistant to pressure up to 3 bar, certified by TÜV with pressure pump, safety valve, combined shut-off/non-return valve, connection hose with 1/2" swivel nut.

JTH-D	Order - Number	8125501
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Type JTH-D

Test Kits

JTH-ML for JTH-L	Order - Number	8742170
Molybdenum colour comparison kit	Order - Number	8690051

Filling with partially-/completely softened Water

fixed installation, concerning heating systems smaller than 50 kW



Calcified heat exchanger

The JUDO HEIFI-RESOFT fixed installation softener unit [JHRS 8700], consists of a softening cartridge with integrated blending device and the tried- and proved JUDO QUICKSET-connection technique to incorporate the unit firmly into the filling line.

The capacity is designed to execute a typical installation with a 15 kW heating performance. Related to a

raw water hardness of 20 °dH it supplies sufficient partially softened water [8° dH], covering up to three system fillings. When the cartridge is used up, it can be disposed of with the domestic waste. The used cartridge, if, as an example, larger heating contents are required, can easily be replaced - simply a new replacement cartridge has to mounted [JHRS-E 8700].



Type JHRS 8700

JUDO HEIFI-RESOFT

Type JHRS 8700

Fixed installation unit to effect partial-/ complete softening of the fill-and make-up water of warm water heating systems.

Scope of supply: an exchanger vessel, made of plastics, with integrated blending device, filled with high performance cation-exchange resin, mounted in connection-ready state onto the built-in rotary flange with patented bayonet connection, shut-off ball valve, positioned exit-sided as well as entry-sided water meter to register the fill water quantity. All the materials are suited to be used in softened water, the hardness measuring instrument included.

Type	JHRS 8700	
Pipe connection		¾"
Max. fill capacity	l/h	400
Capacity when 20° dH to 0° dH	l	435
Capacity when 20° dH blended to 8 °dH	l	725
Max. operating pressure	bar	6
Max. operating temperature	°C	30
Face-to-face length	mm	205
Face-to-face depth (to pipe-center)	mm	45
Overall height	mm	741
Order - Number		8068510

Replacement Cartridge

Replacement cartridge model JHRS-E 8700 made of fibre-glass reinforced plastics with integrated blending device, filled with high-performance cation-exchange resin.

Order - Nr. 8068511

Recommended accessories:

JUDO HEIFI-FÜL, Order-Number 8060040 (see page 44), automatic heating refill unit with integrated system separation BA. Measuring instruments to determine the conductivity.

A Salt-poor Heating Filling

fixed installation, concerning heating systems smaller than 50 kW

Renowned Boiler and Water Heater Manufacturers expressively recommend the so-called „salt-poor“ operation mode concerning a part of their product range. The filling of heating systems with salt-poor water [conductivity up to 100 µS/cm] reduces not only the danger of performance decreasing effects of lime deposits, but also represents an optimal corrosion protection. The low electrolyte content diminishes the rapidity of corrosion decisively, also without using additive chemicals.

A hyper-alkalinisation, that can occur when filling with partially-/completely-softened water, is avoided. It is of particular importance when aluminium alloys are used in heat exchangers, a usage that nowadays is particularly wide-spread in the condensing appliance technology.

The JUDO HEIFI-REPURE desalination unit [JHRP 8000] a fixed-installation-design application, consists of a desalinating cartridge and the tried- and proved JUDO QUICK-SET –connection technique incor-

porate the unit firmly into the filling-line.

The capacity is designed to execute a typical installation with a 15 kW heating performance.

When the raw water hardness is 20° dH, it supplies sufficient salt-poor water to effectuate the first filling and an additional filling through a back-feed performance or maintenance. If the cartridge is used up it can be disposed of with the domestic waste. It is replaced with a new replacement cartridge [JHRP-E 8000] to be connected.



Type JHRP 8000

JUDO HEIFI-REPURE

Type JHRP 8000

Fixed installation unit to effect desalination of the fill- and make-up water of warm water heating systems.

Scope of supply: An exchanger vessel, filled with a high performance mixed bed ion exchange resin, assembled in connection-ready state onto the built-in rotary state with patented bayonet connection, shut-off ball valve, positioned exit-sided, as well as entry-sided water-meter to register the fill water quantity. All the materials are suited to be used in desalinated water.

Type	JHRP 8000	
Pipe connection		¾"
Max. fill capacity	l/h	600
Capacity when 20° dH to 0° dH	l	400
Max. operating pressure	bar	6
Max. operating temperature	°C	30
Face-to-face length	mm	205
Face-to-face depth (to pipe-center)	mm	87
Overall height	mm	545
Order - Number	8068512	

Replacement Cartridge

Replacement cartridge model JHRP-E 8000 made of fibre-glass reinforced plastics, filled with high performance mixed bed ion exchange resin.

Order - Nr. 8068513

* As a calculation base serves the total hardness of the untreated raw water. Indication of the fill-capacity up to 100 µS/cm.

Recommended accessories:

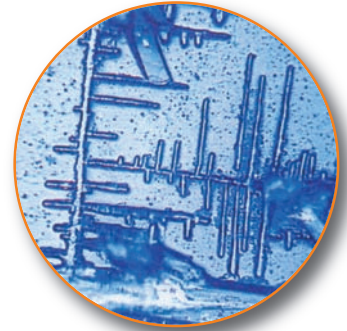
JUDO HEIFI-FÜL, Order-Number 8060040 (see page 44), automatic heating refill unit with integrated system separation BA. Measuring instruments to determine the conductivity.

The Healing Power of Precious Stones suitable for Drinking, for Having a Shower, or a Bath

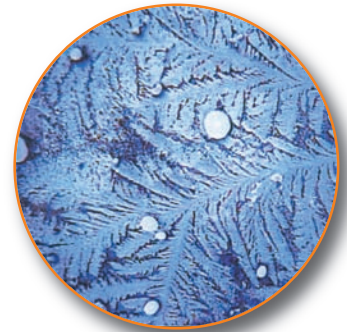
With the innovation of the JU-WEL, JUDO realized the dream of many people of tap-water, immediately at their disposal, energy-rich, and in source-water quality. The JU-WEL method, unique throughout the world has been applied for a patent.

The idea of the JU-WEL is based on an age-old knowledge concerning the healing powers of precious stones as well as on recent Clusters-researches. JU-WEL devices enable to ener-

gize the drinking-water of the domestic water pipes. The mechanism of action: Water circulates around precious stones as for example the Amethyst, Rock Crystal, and Rose Quartz. The structures of the water are opened through swirl mixings (the quality of tap water changes to source-water quality), and the characteristic information, respectively the energy of the precious stones is thus transferred to the water.



Drinking water



JU-WELized Drinking water

The Advantages:

- ◆ JU-WELization by means of precious stones
- ◆ Precious stones with certificate of genuineness
- ◆ More vital energy, fitness, well-being...
- ◆ Harmonizing when suffering from stress, restlessness, insomnia
- ◆ Natural energetic enhancement
- ◆ Re-vitalization through light loader

	JU-WEL Trio	JU-WEL Amethyst	JU-WEL Compact	JU-WEL Vario
Precious stones with quality certificate	●	●	●	●
Weekly automatic re-vitalization of the precious stones	●	●	●	
Filling consisting of amethyst	●			
Filling consisting of amethyst, rock crystal and rose quartz		●	●	
Filling consisting of amethyst (with exchange flacons, more stones on request)				●
Available pipe connections:	3/4" - 1 1/4"	3/4" - 1 1/4"	1/4"	M 24x1

JUDO JU-WEL

Pure Wellness through JU-WELized Water



Type JUW-A

JUDO JU-WEL Amethyst

Central JU-WELizing Device
Type JUW-A 3/4" - 1 1/4"
 for water up to 30 °C

Scope of Supply: Beautifully shaped housing, made of high-quality plastic (PN 10), equipped with inspection glass and light protection. Filling consisting of energetically enhanced Amethyst precious stones for the JU-WELization of the drinking water, with mounted light loader for the re-vitalization of the jewels, threaded connection according

to DIN 2999, built-in rotary flange with patented brass bayonet-connector with fittings.

Type JUW-A 3/4" - 1 1/4"
with JQR for water up to 30 °C

Scope of Supply: Same as above, however, without built-in rotary flange, equipped instead with serial extension QUICKSET, for the retrofitting on the JUDO protective filter (JPF+, JPM, JSP, JUKO-LF).

Type	JUW-A	JUW-A	JUW-A
Pipe connection	3/4"	1"	1 1/4"
Water flow rate m ³ /h	3,3	4,5	5,5
Pressure loss bar	0,35	0,35	0,35
Installation length mm	180	195	230
Order - Number	8012501	8012502	8012503

Type JUW-A with JQR, however, without JQE	Order - Number	8012505
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Type JUW-T

JUDO JU-WEL Trio

Central JU-WELizing Device with a triple precious stone mixture
Type JUW-T 3/4" - 1 1/4"
 for water up to 30 °C

Scope of Supply: Beautifully shaped housing, made of high-quality plastic (PN 10), equipped with inspection glass and light protection. Filling consisting of energetically enhanced Amethyst, Rose Quartz and Rock Crystal precious stones for the JU-WELization of the drinking water, with mounted light loader for the re-vitalization of the jewels,

threaded connection according to DIN 2999, built-in rotary flange with patented brass bayonet-connector with fittings.

Type JUW-T 3/4" - 1 1/4"
with JQR for water up to 30 °C

Scope of Supply: Same as above, however, without built-in rotary flange, equipped instead with serial extension QUICKSET, for the retrofitting on the JUDO protective filter (JPF+, JPM, JSP, JUKO-LF).

Type	JUW-T	JUW-T	JUW-T
Pipe connection	3/4"	1"	1 1/4"
Water flow rate m ³ /h	3,3	4,5	5,5
Pressure loss bar	0,35	0,35	0,35
Installation length mm	180	195	230
Order - Number	8270030	8270031	8270032

Type JUW-T with JQR, however, without JQE	Order - Number	8270033
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JUDO JU-WEL

Pure Wellness through JU-WELized Water



Type JUW-CO

JUDO JU-WEL Compact

JU-WEL Water Device for under-table installation with a triple precious stone filling, type JUW-CO 1/4" for water up to 30 °C

Scope of Supply: Beautifully shaped housing, made of high-quality plastic (PN 10), equipped with inspection glass, filling consisting of energetically enhanced Amethyst-

Rose Quartz and Rock-Crystal precious stones for the JU-WELization of the drinking water, with mounted light-loader for the re-vitalization of the precious stones. Wall mounting under the sink or the washstand after the angle valve for cold water with union nut 3/8" for the installation into the feed line leading to the outlet fitting.

Type	JUW-CO
Pipe connection	1/4"
Water flow rate m³/h	0,5
Pressure loss bar	0,35
Installation length mm	98
Order - Number	8012515



Type JUW-V

JUDO JU-WEL Vario

JU-WEL Water Device with exchange flacons for the outlet fitting, type JUW-V for water up to 50 °C

Scope of Supply: Beautifully shaped chromium plated adaptor for threaded connector M 24x1 and two exchange flacons, type A. Filling consisting of energetically enhanced Amethyst precious stones for the JU-WELization of the drinking water.

Type	JUW-V
Pipe connection	M 24x1
Water flow rate m³/h	0,4
Installation length mm	55
Order - Number	8012516

JU-WEL Vario Adaptor	Order - Number	8275001
JU-WEL Vario Exchange-Flacon-Set	Order - Number	8275002

JUDO Chemicals

For the Boiler Water Treatment



Type JTH-L, 25 litres



Type JTH-R, 25 litres



Type JH 1, 10 kg

JUDO Dosing Agent JTH-L

Field of application: Principally Warm Water Heating Installations
Mode of action: Corrosion inhibition, protective film formation
Concentration: Minimum 1 l per 200 l system volume
Proof: Minimum 150 mg/l molybdate (measuring instrument JTH-ML)

JTH-L fluid product, ready for dosing Combination product in liquid form on the basis of molybdene, organic acids and non-ferrous inhibitors		
Can size	Packing unit	Order - Number
5 l *	1 piece	8838180
25 l *	1 piece	8838175
Test kit: JTH-ML		8742170

* Smaller can sizes, see page 45, please

JUDO Dosing Agent JTH-R

Field of application: Principally Warm Water Heating Installations
Mode of action: Cleaning of older heating circuits. It can be possible that the treatment has to be effected several times. Approximately 4 weeks after the addition of JTH-R the system will be flushed, refilled and conditioned with JTH-L.
Concentration: Minimum 1 l per 200 l system volume

JTH-R fluid product, ready for dosing Combination product in liquid form: cleans gently, retaining the properties of the metal		
Can size	Packing unit	Order - Number
5 l *	1 piece	8838178
25 l *	1 piece	8838176

* Smaller can sizes, see page 49, please

JUDO Dosing Agent JH 1 Please note: Don't apply in case of aluminium materials

Field of application: Principally Warm Water Heating Installations above 100 kW heating output (VDI 2035)
Mode of action: Alkalisng, oxygen binding in the boiler feed water and residual hardness precipitation
Concentration: Approximately 100 - 150 ml per m³ system volume, respectively refeeding water
Preparation: As a 10% solution with softened water
Proof: Approximately 5 - 10 mg/l phosphate the boiler regulations have to be taken into consideration
 Approximately 5 - 10 mg/l over plus of sulphite, boiler regulations have to taken into consideration (sampling cooler necessary)
 Approximately 5 - 20 mg/l over plus of sulphite concerning hot water heatings (VDI 2035, sampling cooler necessary)

JH 1 product in powder form Combination of alkaline phosphate and an oxygen binding agent.	
Can size	Order - Number
10 kg	8838150
Test kit: Sulphite *	8742134
Test kit: Phosphate	8742136

* Sampling cooler required



JUDO Chemicals

For the Boiler Water Treatment



Type JHL 2, 25 litres

JUDO Dosing Agent JHL 2 Please note: Don't apply in case of aluminium materials

- Field of application:** Principally Warm Water Heating Installations above 100 kW heating output (VDI 2035)
- Mode of action:** Alkalisng, oxygen binding in the boiler feeding water and residual hardness precipitation
- Concentration:** Approximately 100 - 150 ml per m³ system volume, respectively refeeding water
- Proof:** Approximately 5 - 10 mg/l phosphate the boiler regulations have to be taken into consideration
 Approximately 5 - 10 mg/l over plus of sulphite, boiler regulations have to taken into consideration (sampling cooler required)
 Approximately 5 - 20 mg/l over plus of sulphite concerning hot water heatings (VDI 2035, sampling cooler)

JHL 2 fluid product, ready for dosing

Combination of alkaline phosphate and an oxygen binding agent, not being vapourized. Food grade.

Can size	Order - Number
25 l	8838152
60 l	8838153
Test kit: Sulphite *	8742134
Test kit: Phosphate	8742136

* Sampling cooler required



Type JHL 3, 25 litres

JUDO Dosing Agent JHL 3 Please note: Don't apply in case of aluminium materials

- Field of application:** Principally Hot Water Heating Installations above 100 °C
- Mode of action:** Alkalisng, oxygen binding in the boiler feeding water and residual hardness precipitation
- Concentration:** Approximately 100 - 150 ml per m³ feed water
- Proof:** Approximately 5 - 10 mg/l phosphate the boiler regulations have to be taken into consideration, absence of oxygen *

JHL 3 fluid product, ready for dosing

Combination of alkaline phosphate and an oxygen binding agent, which has only slight effect on the salt content. Food grade.

Can size	Order - Number
25 l	8838154
60 l	8838155
Test kit: Oxygen	8742172
Test kit: Phosphate	8742136

* Sampling cooler required

JUDO Dosing Agent JH 4

- Field of application:** Steam boiler installation
- Mode of action:** Reduction of the alkalinity and the residual hardness precipitation
- Making-up:** As a 10% solution, with softened water
- Dosing:** Approximately 100 - 200 ml per m³ refeeding water
- Proof:** Approximately 5 - 10 mg/l phosphate the boiler regulations have to be taken into consideration

JH 4 product in powder form

Consisting of a mixture of phosphates

Can size	Order - Number
10 kg	8838164
25 kg	8838165
Test kit: Phosphate	8742136

JUDO Chemicals

For the Boiler Water Treatment

JUDO Dosing Agent JH 5 Please note: Don't apply in case of aluminium materials

Field of application: Principally boiler installations above 100 °C
Mode of action: Alkalisating and residual hardness precipitation
Making-up: As a 10% solution, with softened water
Dosing: Approximately 100 - 200 ml per m³ feed water
Proof: Approximately 5 - 10 mg/l phosphate (the boiler regulations have to be taken into consideration)

JH 5 product in powder form
 Consisting of a mixture of alkali phosphates

Can size	Order - Number
10 kg	8838158
25 kg	8838159
Test kit: Phosphate	8742136



Type JNS, 10 kg

JUDO Dosing Agent JNS

Field of application: Boiler installations
Mode of action: Oxygen binding in the boiler water
Making-up: As a 10% solution, with softened water
Dosing: Approximately 80 ml per gramme oxygen as per m³ feed water
Proof: Approximately 5 - 10 mg/l overplus of sulphite, boiler regulations have to be taken into consideration *
 Approximately 5 - 20 mg/l overplus of sulphite concerning hot water heatings (VDI 2035) *

JNS product in powder form
 Consisting of an oxygen binding agent, being not vapourized. Food grade.

Can size	Order - Number
10 kg	8838162
25 kg	8838166
Test kit: Sulphite	8742134

* Sampling cooler required



Type JHL 10, 25 litres

JUDO Dosing Agent JHL 10

Field of application: Steam boiler installations
Mode of action: Oxygen binding in the boiler water
Dosing: Approximately 60 ml per gramme oxygen per m³ feed water
Proof: Absence of oxygen (sampling cooler required)

JHL 10 fluid product, ready for dosing
 Consisting of an oxygen binding agent, that does not influence on the salt content.

Can size	Order - Number
25 l	8838156
60 l	8838157
Test kit: Oxygen	8742172



JUDO Chemicals

For the Air- and Cooling Water Treatment



Type JKL 25, 60 litres

JUDO Dosing Agent JKL 25

Field of application: Open cooling circuits and air washers (spray-humidifiers)
Effect: Hardness stabilization, corrosion inhibition and dispersion
Dosing: Approximately 125 - 250 ml as per m³ feed water
Proof: Approximately 0,5 - 5 mg/l phosphate in the circuit water, only to be proved in the laboratory

JKL 25 fluid product, ready for dosing
 Combination, consisting of organic phosphorous compounds with polycarboxylates.

Can size	Order - Number
25 l	8839121
60 l	8839122



Type JKL 30, 25 litres

JUDO Dosing Agent JKL 30

Field of application: Open cooling circuits
Effect: Biocide for the quick destroying of the biologic burden
Dosing: Approximately 1 l as per m³ system volume as shock dosing after the optical control of the cooling tower
Please note: According to appendix 31 RABwVwV no bleed-of must not be conducted for approximately six hours after its adding

JKL 30 fluid product, ready for dosing
 Based on quaternary atomic compounds.

Can size	Order - Number
25 l	8839123
60 l	8839124



Type JKL 35, 25 litres

JUDO Dosing Agent JKL 35

Field of application: Air washers / spray humidifiers
Effect: Biocide, hardness stabilization, corrosion inhibition and dispersion
Dosing: Approximately 200 - 500 ml as per m³ feed water
Proof: Approximately 1,0 - 1,6 mg/l phosphate in the circuit water (product guidelines are to be observed)

JKL 35 fluid product, ready for dosing
 Combination, consisting of biocides and weak organic acids.

Can size	Order - Number
25 l	8839160
60 l	8839161



Type JKL 40, 25 litres

JUDO Dosing Agent JKL 40

Field of application: Closed and semi-open cooling circuits
Effect: Corrosion inhibition, hardness stabilization and dispersion
Dosing: Approximately 2.000 - 3.000 ml per m³ system volume respectively refill water
Proof: Minimum 150 mg/l molybdate (test kit JTH-ML) in the circuit water

JKL 40 fluid product, ready for dosing
 Combination based on molybdate, low molecular phosphoncarboxylates, polyelectrolytes and non-ferrous metal inhibitors

Can size	Order - Number
25 l	8660001
60 l	8660002
Test kit: JTH-ML	8742170

JUDO Chemicals / Filter Materials

Chemicals and Filter Materials

Description	Type	Unit	Order-Number
Polyaluminiumchloride, as an inorganic floccing agent, ready for dosing, active substance Al_2O_3 as approximately 10 percent by weight for the precipitation and flocculation concerning the industrial water- and swimming pool water treatment, filled in one way canister	PAC	35 kg	8610010
Potassium permanganate as inorganic oxidizing agent, in powder form for the drinking water- and industrial water treatment, filled in sacks		5 kg	8839106
Inorganic fluid chlorine compound according to DIN 19608, active chlorine content approximately 15 %, filled in one-way canisters	JFC 20	20 l	8822101
Polymeric fluid product for the hardness stabilization concerning reverse-osmosis units, filled in one-way canisters	JOSL-S2	25 kg	8839114
Quartz grit: Mono-crystalline, fire-dried quart gravel for the single layer filtration and the multi media filtration, packed in plastics sacks 25 kg each.			
JUDOFILT Granulation 5,6 - 8 mm (supporting layer 1) (bulk density 1,55; 25 kg = approximately 16 l)	JUDOFILT	kg *	8360066
JUDOFILT Granulation 3,15 - 5,6 mm (supporting layer 1) (bulk density 1,55; 25 kg = approximately 16 l)	JUDOFILT	kg *	8731010
JUDOFILT Granulation 1 - 2 mm (supporting layer 2 or single layer-filter material) (bulk density 1,55; 25 kg = approximately 16 l)	JUDOFILT	kg *	8731009
JUDOFILT Granulation 0,71 - 1,25 mm (filter layer in case of multi layer-filtration) (bulk density 1,55; 25 kg = approximately 16 l)	JUDOFILT	kg *	8731018
JUDOFILT Granulation 0,4 - 0,8 mm (filter layer in case of multi layer-filtration) (bulk density 1,58; 25 kg = approximately 16 l)	JUDOFILT	kg *	8731007
Broken anthracite coal for multi-layer filtration, packed in plastic bags per 50 l. JUDO HA1, granulation 1: 0,8 - 1,6 mm (filter layer only in combination with quartz gravel, granulation 0,4 - 0,8 mm); (bulk density 0,70; 50 l = 35 kg)	Anthrasit (N)	l	8735174
Catalytic filter material packed in plastic bags of 28 l each, granulation 0,25 - 1 mm (for deferrization/demanganization); (bulk density 0,6; 28 l = approximately 17 kg)	JUDOFILT KAT	28 l	8630003
Porous calcium carbonate - filter material, packed in plastic bags of 50 kg each, granulation 0,5 - 2,5 mm (filter layer for the deacidification); (bulk density 1,0; 50 kg = approximately 50 l)	JUDOFILT CA	kg	8360067
Highly activated granulated carbon with high abrasion resistance for the adsorption of organic substances in water for the catalytic dechlorination and deozoneation, packed in plastic bags of 22 kg each, granulation 1 - 3 mm (bulk density 0,470; 22 kg = 47,7 l)	Activated carbon	kg	8360068
Strongly acidic cation exchange resin on polystyrene basis with sulphonic acid groups, high chemical resistance and mechanical strength, used as sodium exchanger with softening units or as hydrogen exchanger in complete desalination units (bulk density 0,85 - 0,9; 50 l = maximum approximately 45 kg) packed in 25 l sacks each	Cation exchange resin	l	8731020
Strongly basic anion exchange resin, high mechanical resistance, for use in complete desalination plants packed in sacks of 50 l each (bulk density 0,7 - 0,75; 50 l = maximum approximately 38 kg)	Anion exchange resin	l	8731019

* Larger quantities (above one ton) on request



Type JSW 1

JUDO Chemical Protective Equipment

Scope of supply: Visor, rubber apron (acid- and basic-resistant), one pair of rubber gloves, KLC 4031 set of warning signs "Chemicals" in accordance with GUV 8.15.

Chemical Protective Equipment	Order - Number	8510170
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JUDO Safety Tubs

Description	Type	Order-Number
JUDO Safety Tub JSW 1 for the housing of the complete JUT- or JWT - dosing unit with transport canister, solid design up to 60 l, measurements 650 x 470 x 300 mm.	JSW 1	8690026
JUDO Safety Tub JSW 2 for the housing of the transport cans, solid design, measurements 120 x 80 cm.	JSW 2	8690018
JUDO Safety Tub JSW 3 for the housing of the solution- and storage tank, approximately 100 l.	JSW 3	8690043

JUDO Test Kits

Description	Type	Order-Number
Testing of the water hardness by means of the complexometric titration till the change of colour occurs. Measure range 0 - 30 °dH Refill package: Titration Solution, type A Indicator	Total hardness type A	8742119 8742121 8742122
Sufficient for approximately 100 analyses at a mean total hardness of 15 °dH.		
Testing of water hardness by means of the complexometric titration till the change of colour occurs. Measure range 0 - 2 °dH Refill package: Titration solution, type B Indicator	Total hardness type B	8690013 8690014 8742122
Sufficient for approximately 100 analyses at a mean total hardness of 1 °dH.		
Testing of the carbonate hardness, respectively of the m-value by means of the titration till the change of colour occurs. Refill package: Titration Solution, type C Indicator	Carbonate hardness, type C	8742123 8742125 8742126
Sufficient for approximately 100 analyses at a mean carbonate hardness of 10 °dkH		
Test sticks for the testing of the nitrate content in the water (in the box 25 pieces)	Nitrate	8742150
Colour comparison test kit concerning the concentration range 0 - 1,0 mg/l Fe, 100 analyses Refill package: 1 set of reagents, sufficient for approximately 100 analyses	Iron	8742138 8742139
Colour comparison test kit concerning the concentration range 0,03 - 0,5 mg/l Mn, 100 analyses Refill package: 1 set of reagents, sufficient for approximately 220 analyses	Manganese	8690008 8690009
Colour comparison test kit for the control of the chlorine value in drinking- and industrial waters relating to a concentration of 0 - 1 mg/l Refill package: Package for approximately 120 analyses	Chlorine DPD	8742142 8742143
Test sticks for the control of the pH-value in drinking and industrial waters, 100 pieces pack (pH 6,5 - 10,0)	pH-Value	8742130
Test kit for the testing of the concentration of the JUDO long-term conditioner, type JTH-L and JKL 40	JTH-ML	8742170
Test kit for JQD-L2 (molybdenum-free), noted through colour change	JTH-ML2	8838196
Molybdenum recognition kit (colour comparison kit)		8690051
Colour comparison test kit for the range of concentration 0 - 10 mg phosphate Refill package: set of reagents phosphate, sufficient for approximately 100 analyses	Phosphate	8742136 8742137
Colour comparison test kit for the range of concentration 0 - 20 mg sulphite Refill package: set of reagents sulphite, sufficient for approximately 150 analyses	Sulphite	8742134 8742135
Test kit for the testing of the residual oxygen content in the boiler water or the condensate. Range of concentration 0 - 10 mg oxygen	Oxygen	8742172
Testing of the p- and m- value by means of the titration till the change of the colour occurs. Refill package: Titration solution, type C Indicator C Indicator P	p- and m- Value	8742124 8742125 8742126 8742127
pH-indication sticks concerning the range from 7,5 - 14	pH-Value	8742132
Testing of the total number of germs. As a disinfection control on surfaces and in fluids, package containing 10 measuring tubules (durability approximately 3 months)	JKB	8690034
For the testing of the chlorine dioxide in case of high concentrations during the postrinse disinfection, measuring range 0,5 - 25 mg/l	JPTS	8690035
Set of reagents chlorine dioxide		8690040
Additive reagent chlorine dioxide for approximately 150 analyses (in the presence of free chlorine)		8690041
For the testing of chlorine dioxide according to the DPD-method		8690047



JUDO Analysis Equipment



Type JPK 3

JUDO Sampling Water Cooler

Type JPK 1 and JPK 3

For the removal and the cooling of hot water samples, in order to attain precise results when conducting the analysis of the water.

Scope of Supply: vessel, made of steel, welded, PN 10, with all the necessary connectors, with built-in cooling-coil of stainless steel as well as all the required shut-off devices and regulators, pivotable bracket, made of steel, for the sampler, made of glass.

Type JPK 3: same as JPK 1, however, with transparent plastic housing and QUICKSET-E.

JPK 1	Order - Number	8728165
JPK 3	Order - Number	8460050



Type Analysis cabinet

JUDO Boiler Water Journal

Boiler Water Journal for the registration of the measured values	Order - Number	8690010
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JUDO Analysis Cabinets

Description	Type	Order-Number
JUDO Analysis cabinet for the boiler water analysis Type B, equipped with measuring devices (burettes) and reagents (an exactly composed titrator solution) for the determination of the pH-value, total hardness (B), carbonate hardness, p- and m-value, phosphate, density (according to Dr. Ammer) with sulphite test kit.	Analysis cabinet type B	8742181
JUDO Analysis cabinet for the boiler water analysis Type C, same as type B, however, with oxygen test kit.	Analysis cabinet type C	8742182
JUDO Basic analysis cabinet for the individual equipping with JUDO measuring instruments, width 500 mm, height 575 mm, depth 330 mm.	Basic analysis cabinet	8742183



Type Analysis bag

JUDO Analysis Kit for Boiler Water

Description	Type	Order-Number
JUDO Analysis Bag Type B, consisting of one solid and beautifully styled polypropylene bag, colour black. Measurements: 320 x 220 x 75 mm and the colour comparison instruments for total hardness (B), phosphate, sulphite as well as pH-value indication sticks 7,5 - 14.	Analysis bag type B	8690004
JUDO Analysis Bag Type C, consisting of one solid and beautifully styled polypropylene bag, colour black. Measurements: 320 x 220 x 75 mm and the colour comparison instruments for total hardness (B), phosphate, oxygen as well as pH-value indication sticks 7,5 - 14.	Analysis bag type C	8690005

CE



Type JPHM

JUDO Photometer for Chlorine and Chlorine Dioxide

Description	Type	Order-Number
JUDO Photometer manual device for the opto-electronical determination of chlorine dioxide and other water parameters	JPHM	8690039
JUDO Reagents set for JPHM Reagents set chlorine dioxide		8690040
JUDO Additif reagent chlorine dioxide (in the case of free chlorine dioxide required)		8690041

JUDO Testers

Description	Type	Order-Number
pH-value range 0 - 14	JPpH	8690001
Buffer Solution pH 4 for the calibration for JPpH, 250 ml		8721099
Buffer Solution pH 7 for the calibration for JPpH, 100 ml		8721098
Redox-Value range 0 - 1000 mV	JP-Redox	8690002
Conductivity range 0 - 100 µS/cm *	JPLF	8690003
Conductivity range 0 - 3999 µS/cm *	JPLF 4000	8690030
Calitbration solution 84 µS/cm		8690032
Calitbration solution 1413 µS/cm		8690031



Kitchen



Production



Swimming pool



Heating



Dish washer



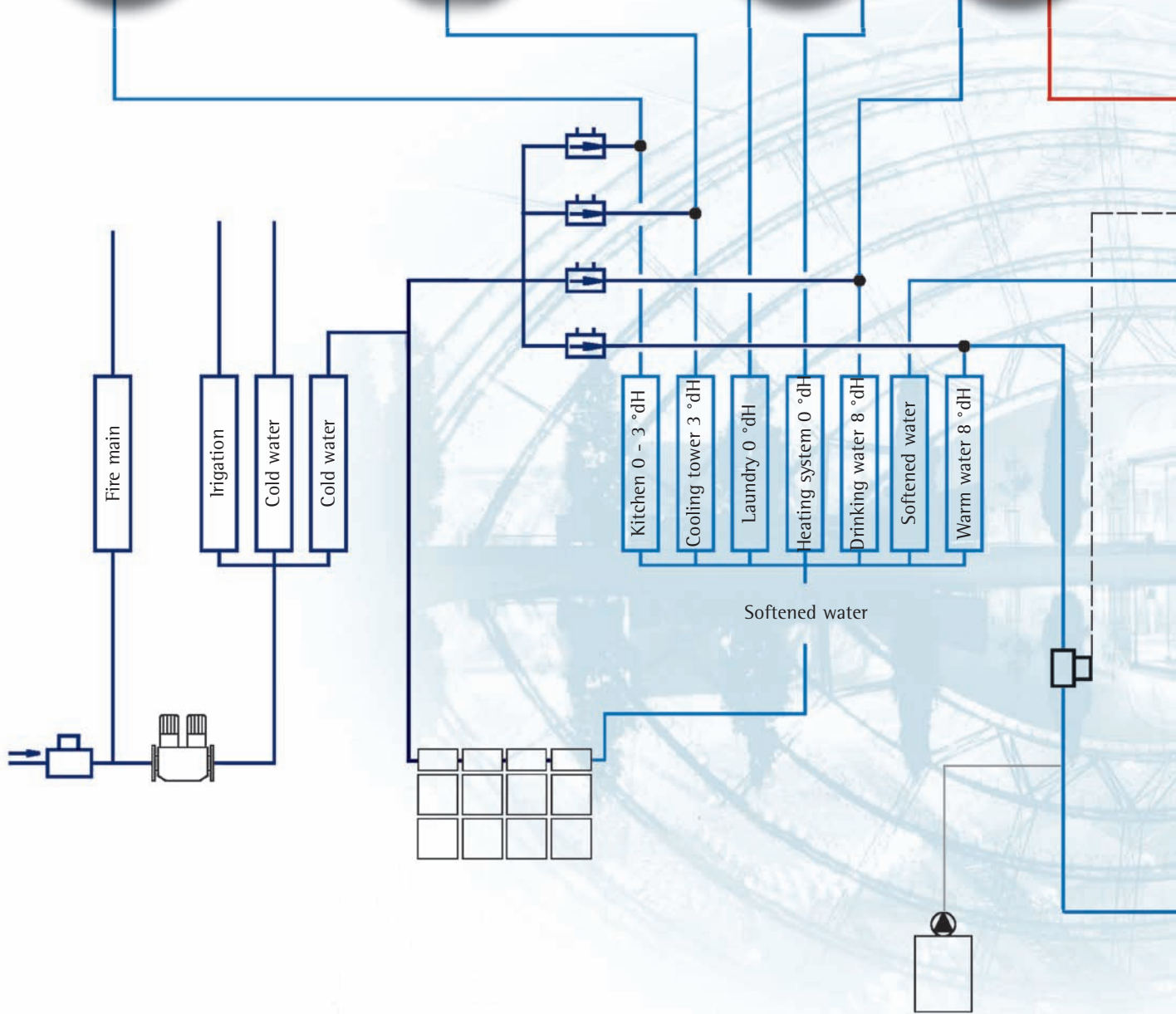
Cooling tower



Laundry



Bath



JUDO
Backwash-Protective-Filter

JUDO CONTISOFT
Softening Unit

JUDO
Dosing Pump Unit

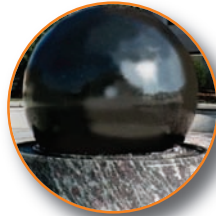
Laboratory



Dish washer



Water features



Air conditioning



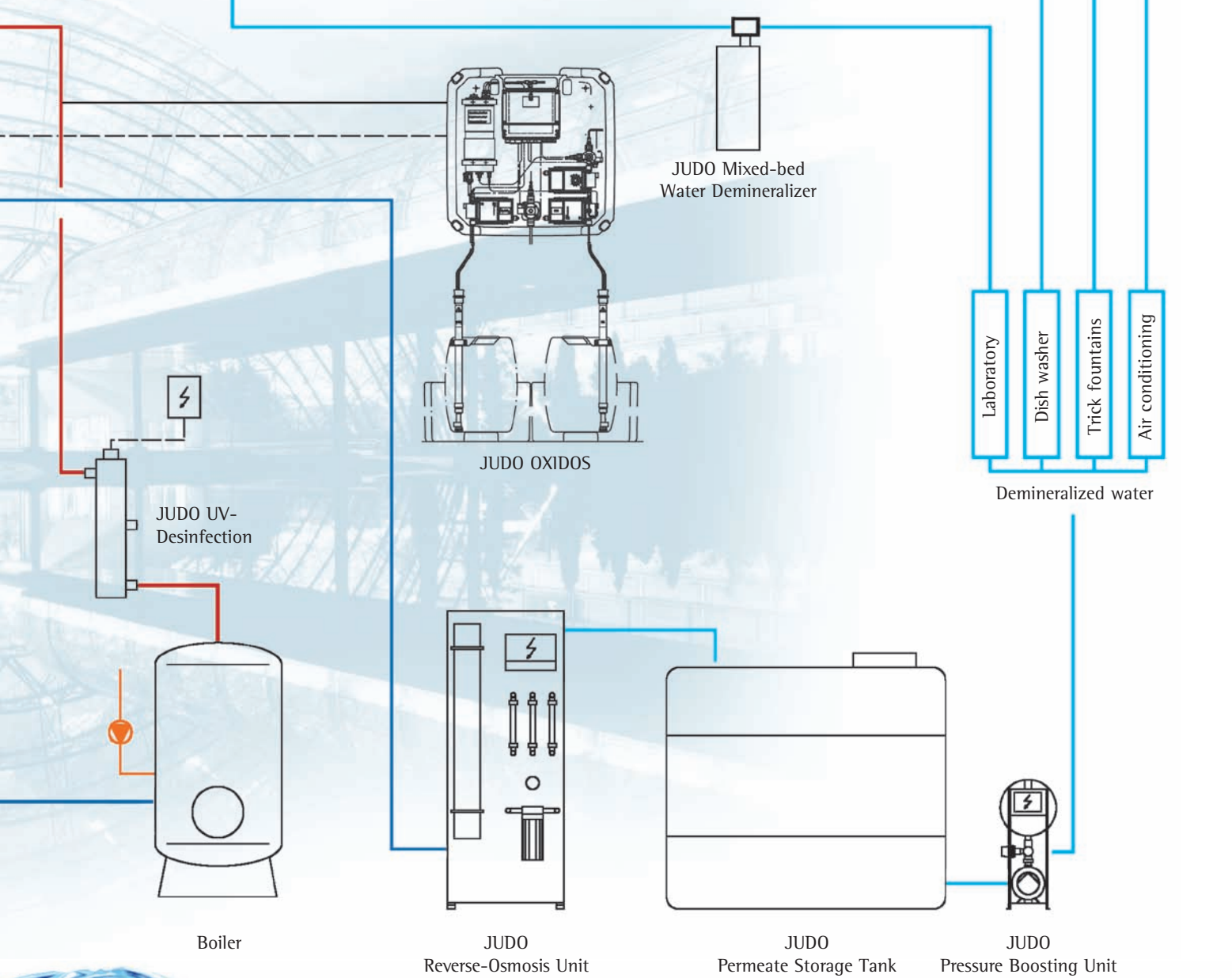
R&D



Car wash plant



Steam boiler



PERFECT TECHNOLOGY MAKES THE DIFFERENCE



Sea water desalination 500 m³/day



Reverse-osmosis



Water works 5.000 m³/day



Purification of surface water



Reverse-osmosis 3.000 m³/day



Decarbonization and softening by ion-exchange

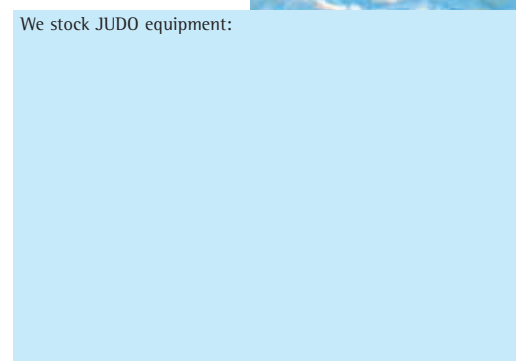


JUDO quality management
We are certified according to ISO 9001:2000



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We stock JUDO equipment:



We reserve the right to make technical changes.