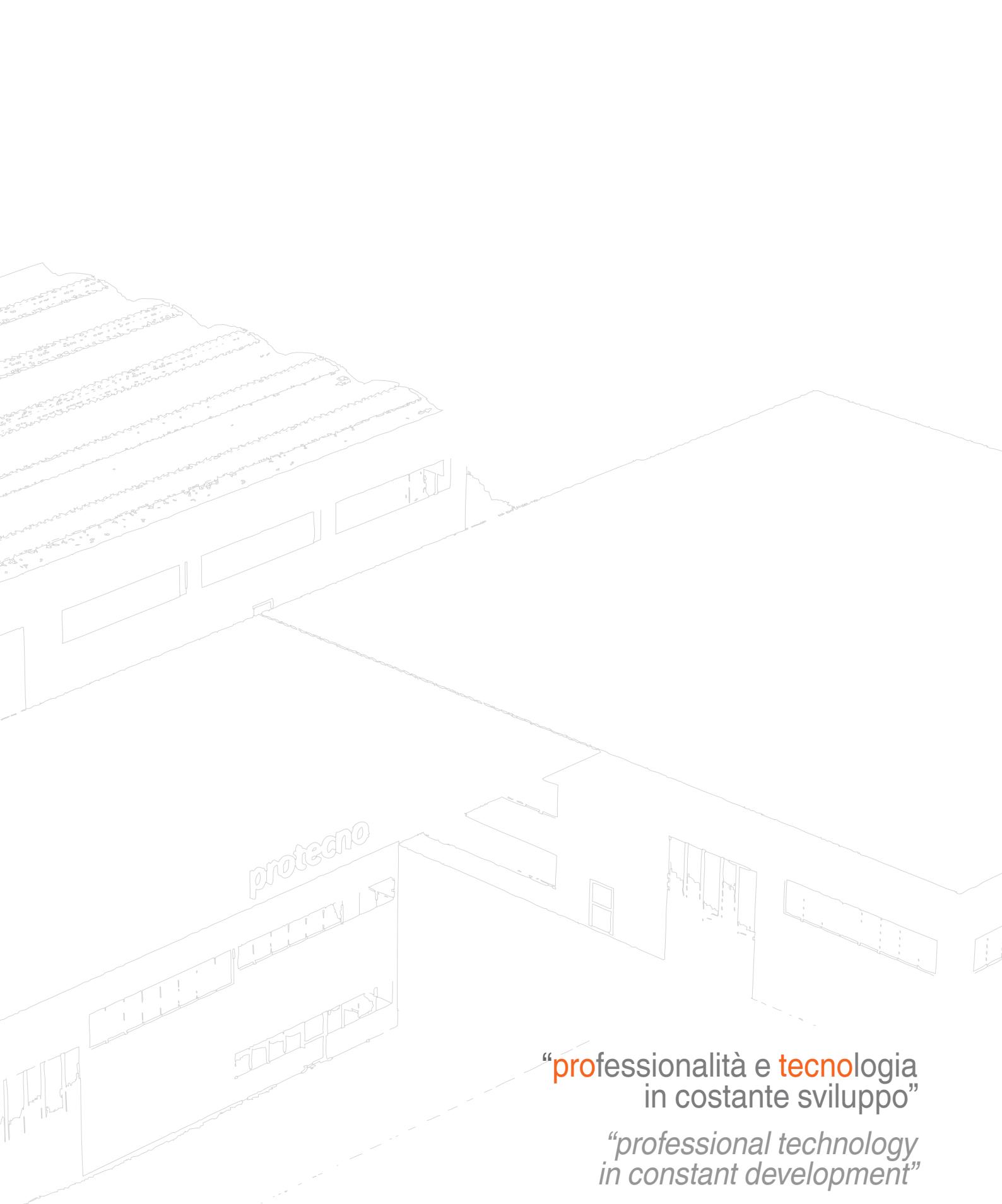


# PORTFOLIO 2010 - 2016

[protecnosrl.it](http://protecnosrl.it)

**protecno**  
WATER TREATMENT PLANTS & SYSTEMS





**“professionalità e tecnologia  
in costante sviluppo”**

*“professional technology  
in constant development”*

*“professionnalisme et technologie  
en constant développement”*

*“profesionalidad y tecnología  
en constante desarrollo”*

 **Protecno nasce nel 1975 ad opera di Lorenzo Belbusti** e si è da sempre occupata di trattamento acque: all'inizio come Agenzia, poi come Distributore di apparecchiature e prodotti, infine, dopo alcuni anni, con l'entrata in Società del fratello **Andrea**, come costruttore di impianti di trattamento acque, crescendo negli anni, fino a diventare una delle più importanti Aziende Italiane del settore.

**Professionalità e tecnologia:** queste semplici parole riassumono la nostra strategia di gestione. Grazie alla rigorosa selezione di tecnologie specializzate unita a un'ampia esperienza e personale altamente qualificato, siamo il **partner ideale** per la progettazione e la costruzione di impianti volti al miglior **trattamento di acque** primarie e residue, attraverso sistemi ad osmosi inversa e unità fisico-chimiche e biologiche. Siamo presenti su tutto il territorio italiano e abbiamo agenzie e succursali in Europa, America, Asia e Africa.



 **Protecno was established in 1975 by Lorenzo Belbusti** and it has always dealt with water treatment: at the beginning as a Sales Agency then as a Supplier of equipments , products and instruments for water treatment. After a few years, **Andrea**, Lorenzo's brother, joined the company and Protecno has expanded to include the building of plants for the treatment of primary and process waters and has become one of the most important Italian companies in the field.

**Professional Technology:** these simple words sum up our management strategy. An accurate selection of specialized technologies, ample experience and qualified staff make us the **ideal partner** for the design and construction of plants and for the provision of **water treatment** services. We proudly design and manufacture plants and systems for primary and wastewater treatment, large reverse osmosis plants, as well as chemical-physical and biological units. We are present all over Italy and have agencies and branches in Europe, America, Africa and Asia.

 **Protecno** a été fondée en 1975 par **Lorenzo Belbusti** et elle est toujours opérationnelle dans le traitement des eaux : Au début elle a démarré comme une agence, ensuite en tant que distributeur de matériels et de produits, enfin, après quelques années , et avec l'entrée dans la société de son frère **Andrea**, en tant que constructeur de stations de traitement des eaux , de plus en plus au fil des années, jusqu'à devenir l'une des plus importantes entreprises italiennes dans ce secteur.

**Professionalisme et technologie:** ces simples mots résument notre stratégie.

Une sélection rigoureuse des technologies spécialisées, une large expérience et un staff qualifié font de nous le **fournisseur idéal** pour la conception, la construction d'usines et pour le service dans le secteur du **traitement de l'eau**. Nous sommes qualifiés pour la conception et la fabrication des systèmes pour le traitement des eaux primaires et des eaux usées, de grandes installations d'osmose inverse, ainsi que des unités physico-chimiques et biologiques. Nous sommes présents sur tout le territoire Italien et nous disposons d'agences et succursales en Europe, en Amérique, en Afrique et en Asie.



 **Protecno nace en el año 1975 obra de Lorenzo Belbusti**, se ha ocupado desde siempre por el Tratamiento del agua: En un principio como una agencia, como Distribuidor de equipamientos y productos, posteriormente después de algunos años, con la entrada a la sociedad del hermano **Andrea**, como constructor de sistemas y plantas de tratamiento de agua, creciendo a través de los años hasta convertirse en una de las más importantes empresas italianas del sector.

**Profesionalidad y tecnología:** estas simples palabras resumen nuestra estrategia de gestión.

Una cuidadosa selección de tecnologías especializadas, amplia experiencia y el personal calificado nos convierte en el **socio ideal** para el diseño y construcción de las plantas y para la prestación de servicios de **tratamiento de agua**. Estamos orgullosos de diseño y fabricación de instalaciones y sistemas para el tratamiento primario de aguas residuales y, grandes plantas de ósmosis inversa, así como unidades físico-químicas y biológicas. Estamos presentes en todo el territorio nacional y tenemos agencias y sucursales en Europa, América, África y Asia.

ISO 9001

ISO 14001

OHSAS 18001

SOA 2012-2017

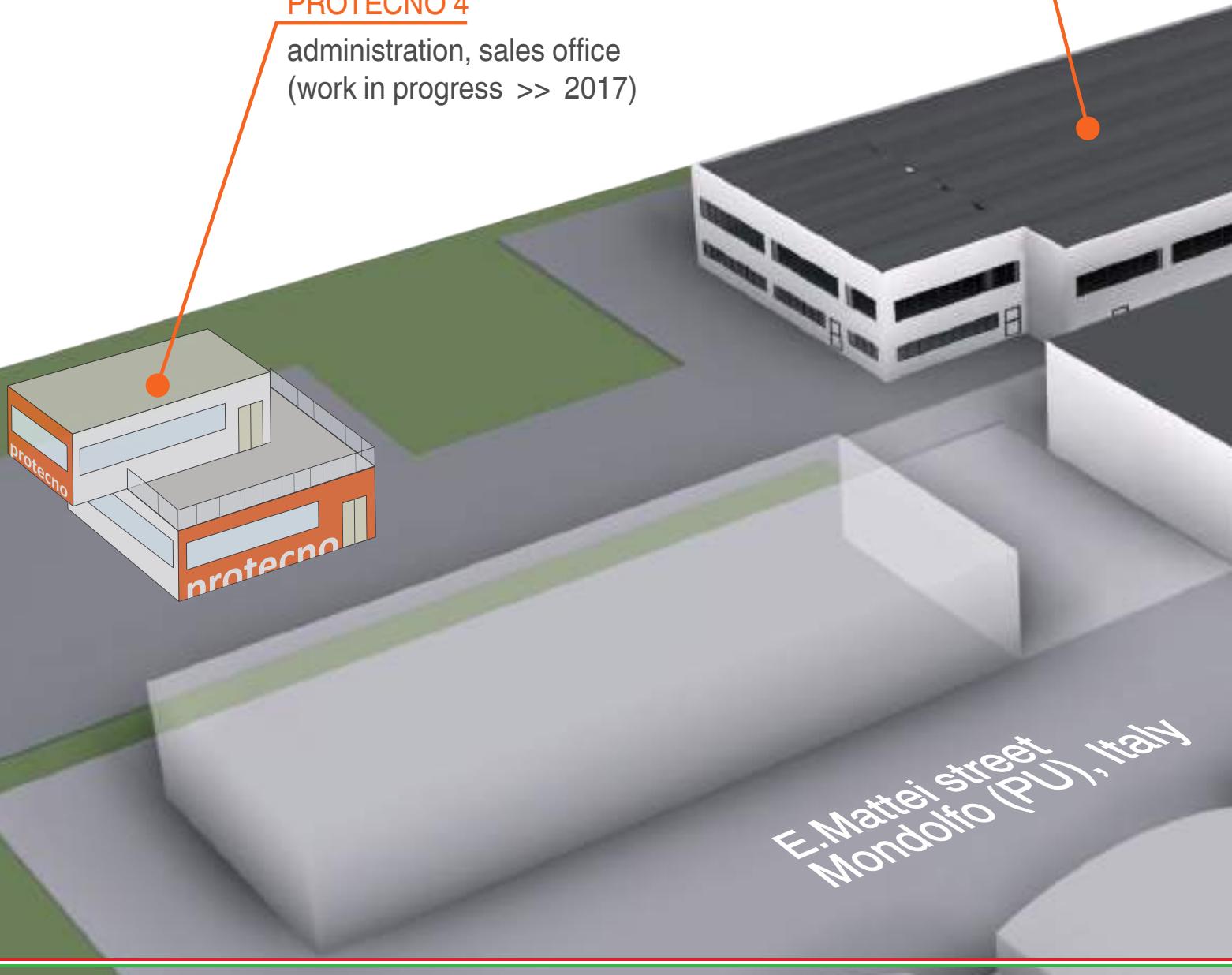


### PROTECNO 3

2.200 m<sup>2</sup>  
warehouse, production line 2

### PROTECNO 4

administration, sales office  
(work in progress >> 2017)



IL PIANO QUALITÀ PROTECNO GARANTISCE STANDARD PRODUTTIVI ESTREMAMENTE ELEVATI.

PROTECNO'S QUALITY PLAN PROVIDES AN EXTREMELY HIGH QUALITY PRODUCTION.

LE PLAN DE QUALITÉ DE PROTECNO GARANTIE DES NORMES DE PRODUCTION EXTRÊMEMENT LEVÉES.

EL CONTROL DE LA CALIDAD GARANTIZA ESTÁNDARES PRODUCTIVOS MUY ELEVADOS.

### PROTECNO 2

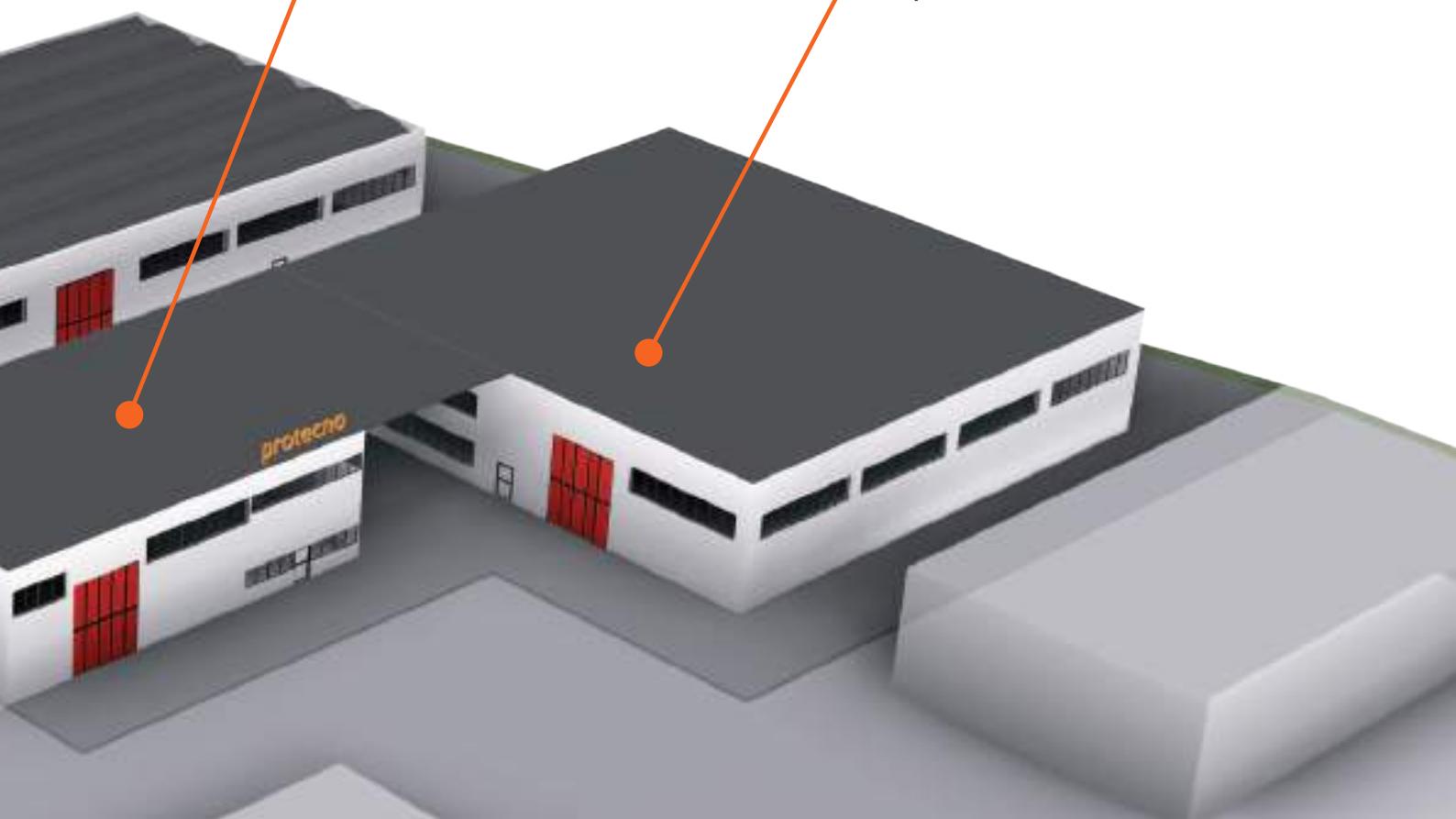
620+100 m<sup>2</sup>

warehouse, logistics,  
shipping

### PROTECNO 1

1400+400 m<sup>2</sup>

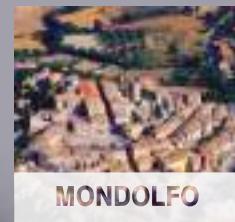
research & design, engineering,  
production line 1



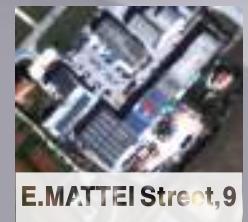
ITALY



MARCHE



MONDOLFO



E. MATTEI Street, 9



TECNOLOGIE  
PRINCIPALI

MAIN TECHNOLOGIES

PRINCIPALES

TECHNOLOGIES

TECNOLOGÍAS

PRINCIPALES

**PROTECNO**

WATER TREATMENT

PLANTS & SYSTEMS

# REVERSE OSMOSIS



# MEDIA FILTRATION

# ULTRAFILTRATION

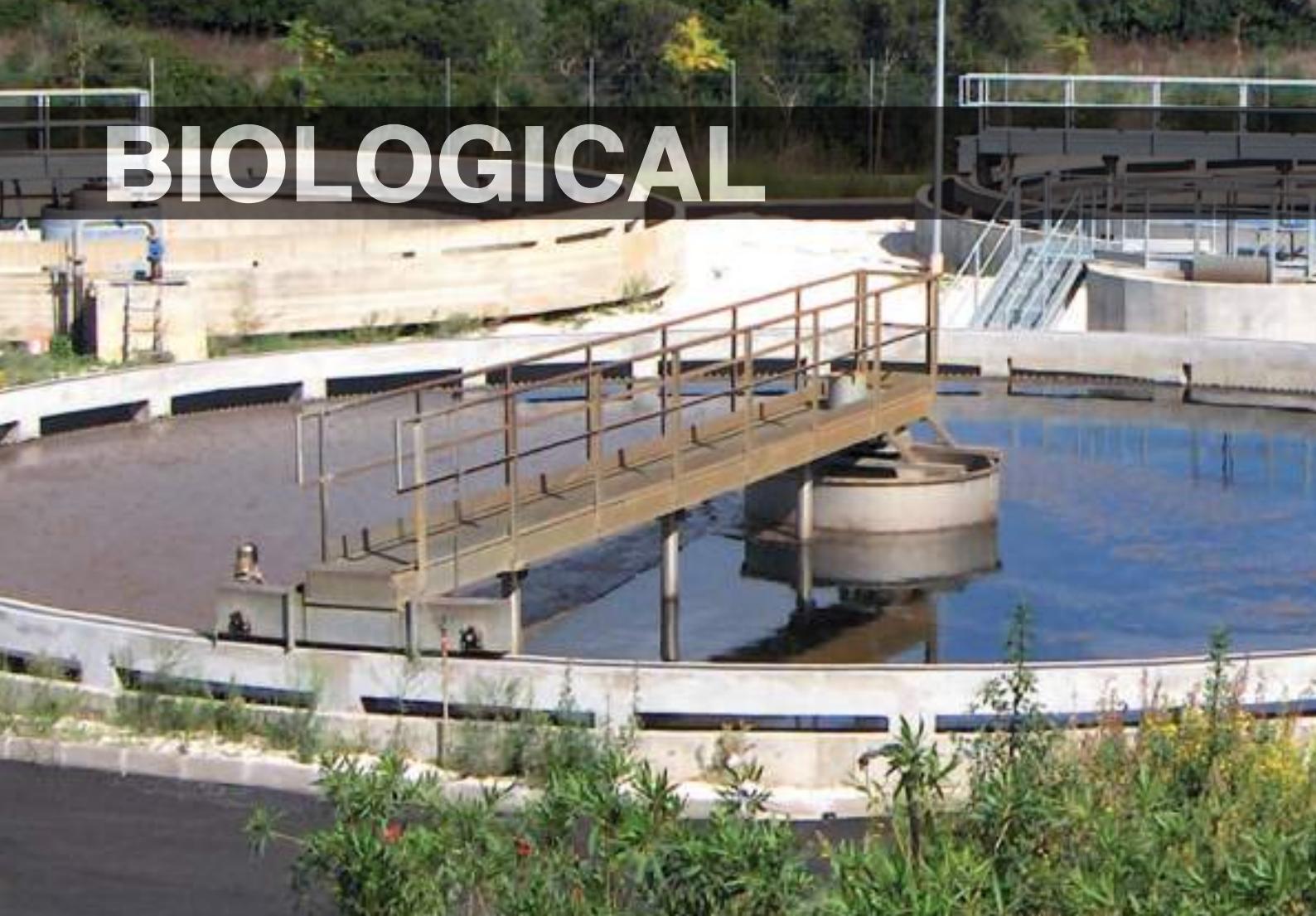


Protecho  
ITALY  
**A7025**

Protecho  
ITALY  
**A7026**

# ION EXCHANGE

# BIOLOGICAL



# SPECIAL



# PHYSICAL-CHEMICAL



# AUTOMATION



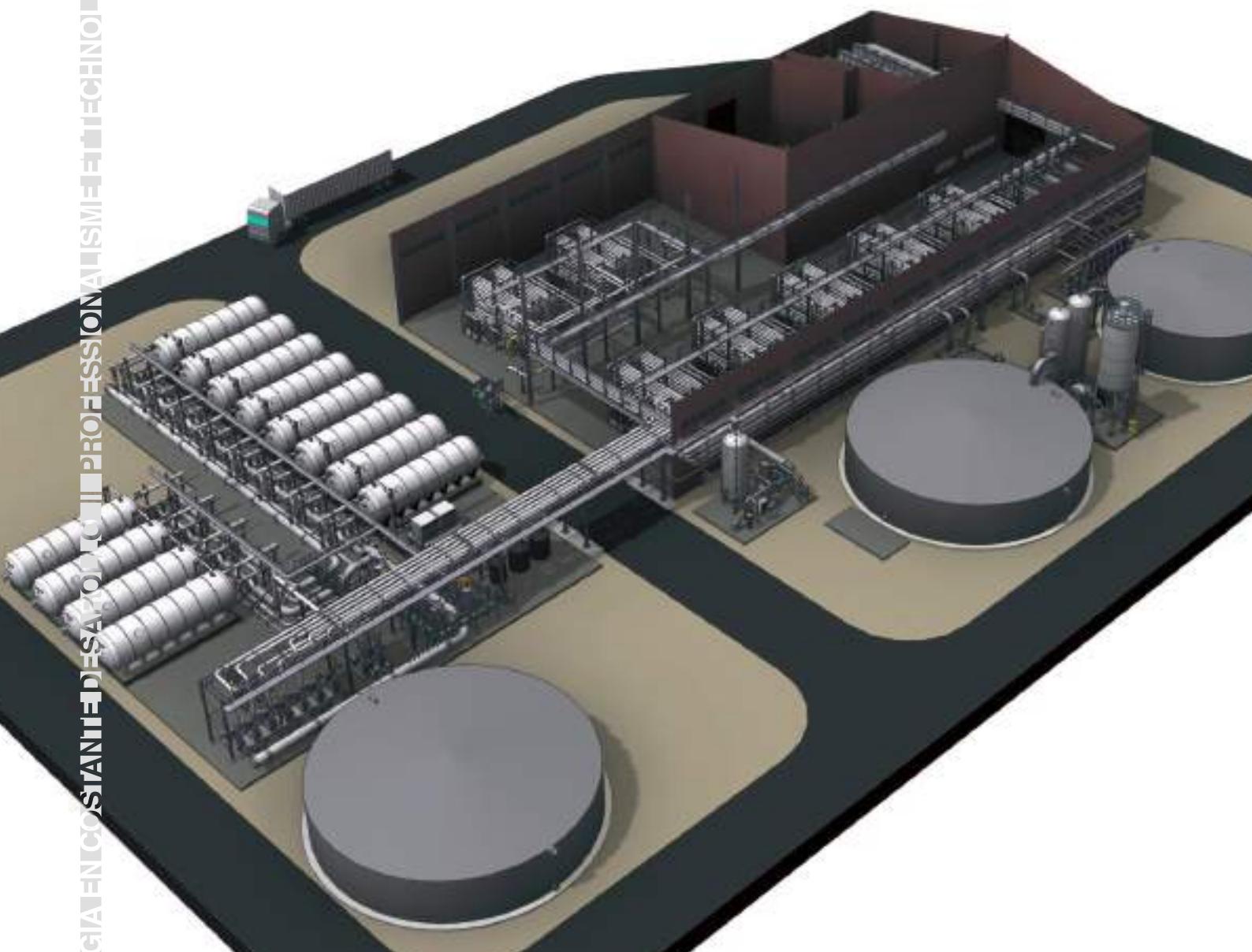


**2010 / 2016**

**I NOSTRI IMPIANTI  
PIU IMPORTANTI. OUR  
MOST IMPORTANT  
PLANTS. LES PLUS  
IMPORTANTES STATIONS.  
DE TRAITEMENT. LAS  
PLANTAS MAS IMPORTANTES.**

**PROTECNO**  
**WATER TREATMENT  
PLANTS & SYSTEMS**

# MEDIA FILTRATION & REVERSE OSMOSIS

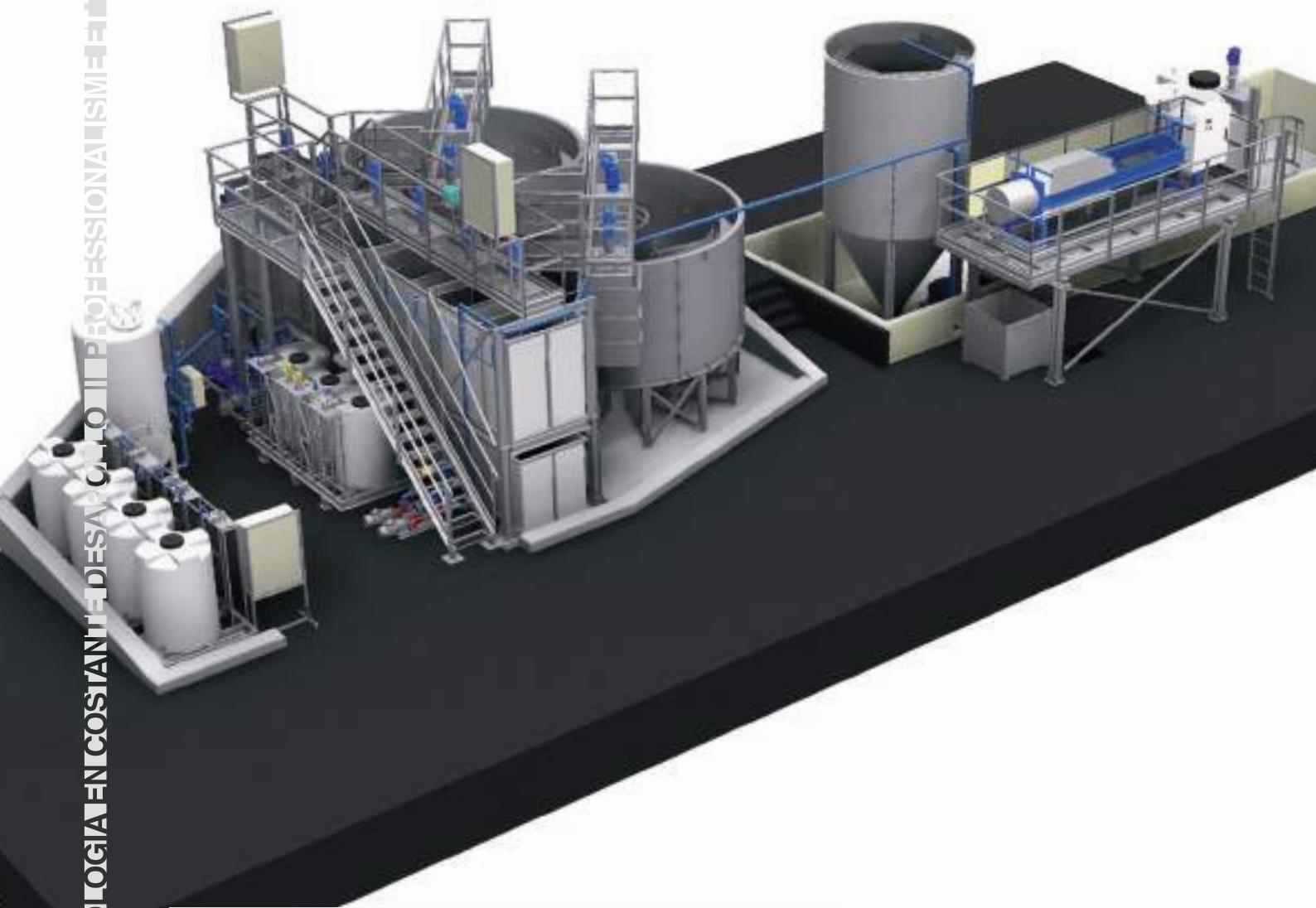


Republic of Cyprus, 2010  
Sea water desalination

DESCRIPTION	CAPACITY
MULTI-MEDIA FILTRATION (V=20 m/h)	7,200 m <sup>3</sup> /h
CARTRIDGE MICRO-FILTRATION	3,750 m <sup>3</sup> /h
1 <sup>st</sup> PASS REVERSE OSMOSIS	1,670 m <sup>3</sup> /h
2 <sup>nd</sup> PASS REVERSE OSMOSIS	340 m <sup>3</sup> /h
RE-MINERALIZATION	1,670 m <sup>3</sup> /h



# PHYSICAL-CHEMICAL



Italy, 2010

Electronic industry waste water purification

DESCRIPTION	CAPACITY
COAGULATION - FLOCCULATION	15 m <sup>3</sup> /h
1 <sup>st</sup> SETTLEMENT	15 m <sup>3</sup> /h
2 <sup>nd</sup> SETTLEMENT	15 m <sup>3</sup> /h
MEDIA FILTRATION	15 m <sup>3</sup> /h



# PHYSICAL-CHEMICAL & MEDIA FILTRATION

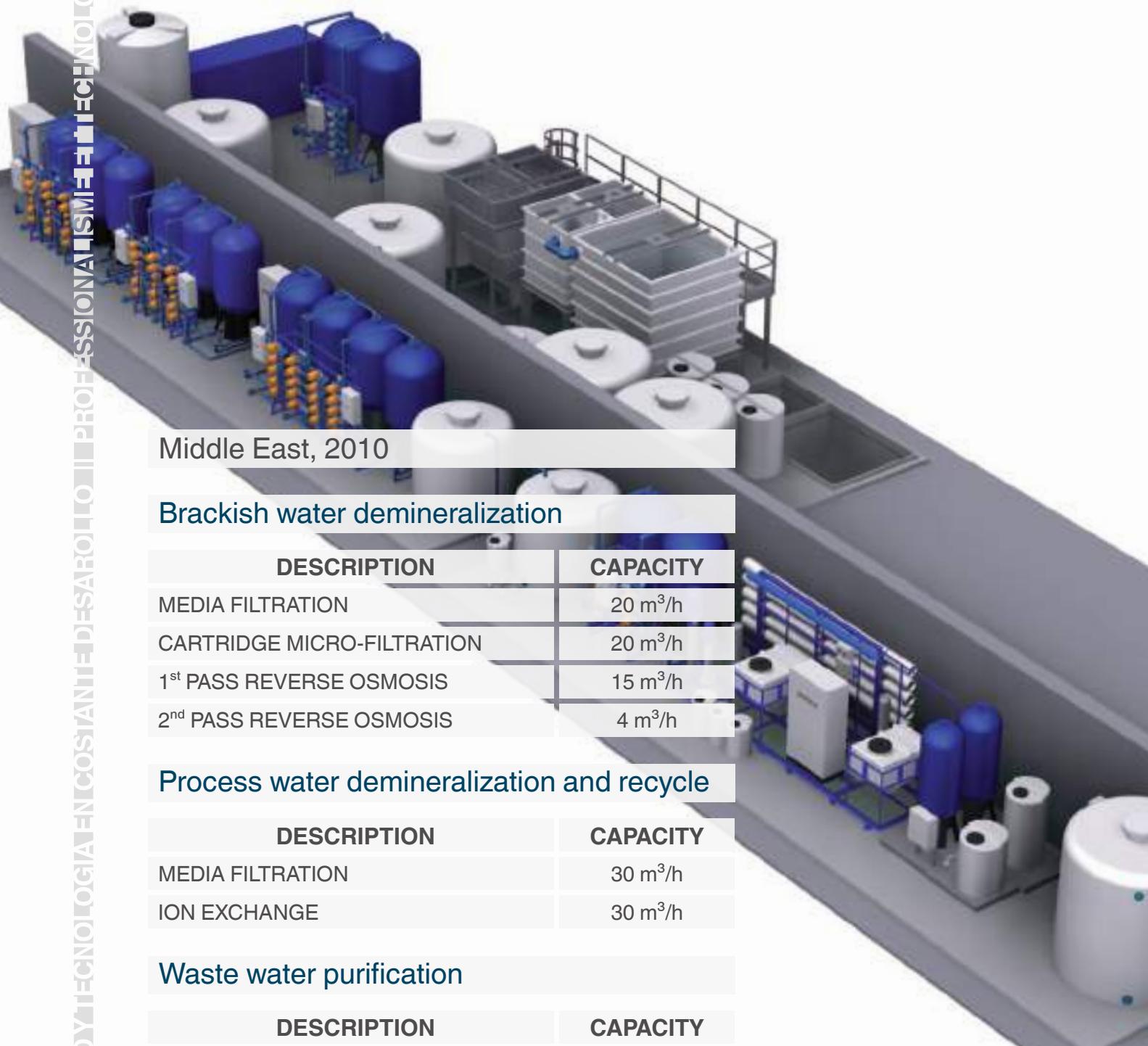


Italy, 2010  
Oil refinery waste water purification

DESCRIPTION	CAPACITY
COAGULATION - FLOCCULATION	325 m <sup>3</sup> /h
SETTLEMENT	325 m <sup>3</sup> /h
ACTIVATED CARBON FILTRATION	325 m <sup>3</sup> /h



# PHYSICAL-CHEMICAL, MEDIA FILTRATION, REVERSE OSMOSIS & ION EXCHANGE



## Brackish water demineralization

DESCRIPTION	CAPACITY
MEDIA FILTRATION	20 m <sup>3</sup> /h
CARTRIDGE MICRO-FILTRATION	20 m <sup>3</sup> /h
1 <sup>st</sup> PASS REVERSE OSMOSIS	15 m <sup>3</sup> /h
2 <sup>nd</sup> PASS REVERSE OSMOSIS	4 m <sup>3</sup> /h

## Process water demineralization and recycle

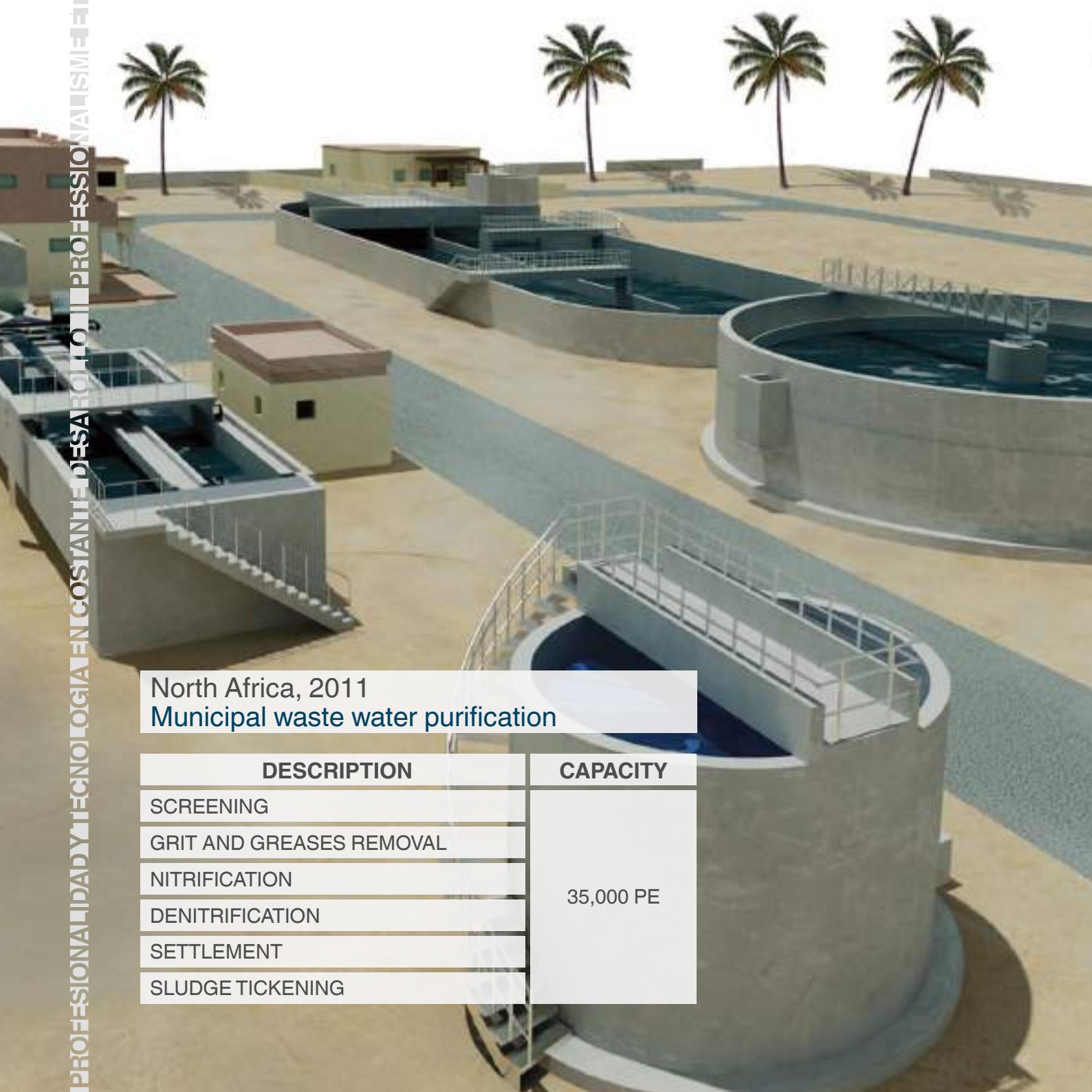
DESCRIPTION	CAPACITY
MEDIA FILTRATION	30 m <sup>3</sup> /h
ION EXCHANGE	30 m <sup>3</sup> /h

## Waste water purification

DESCRIPTION	CAPACITY
EQUALIZATION	20 m <sup>3</sup> /h
COAGULATION - FLOCCULATION	10 m <sup>3</sup> /h
SETTLEMENT	10 m <sup>3</sup> /h
MEDIA FILTRATION	10 m <sup>3</sup> /h



# BIOLOGICAL

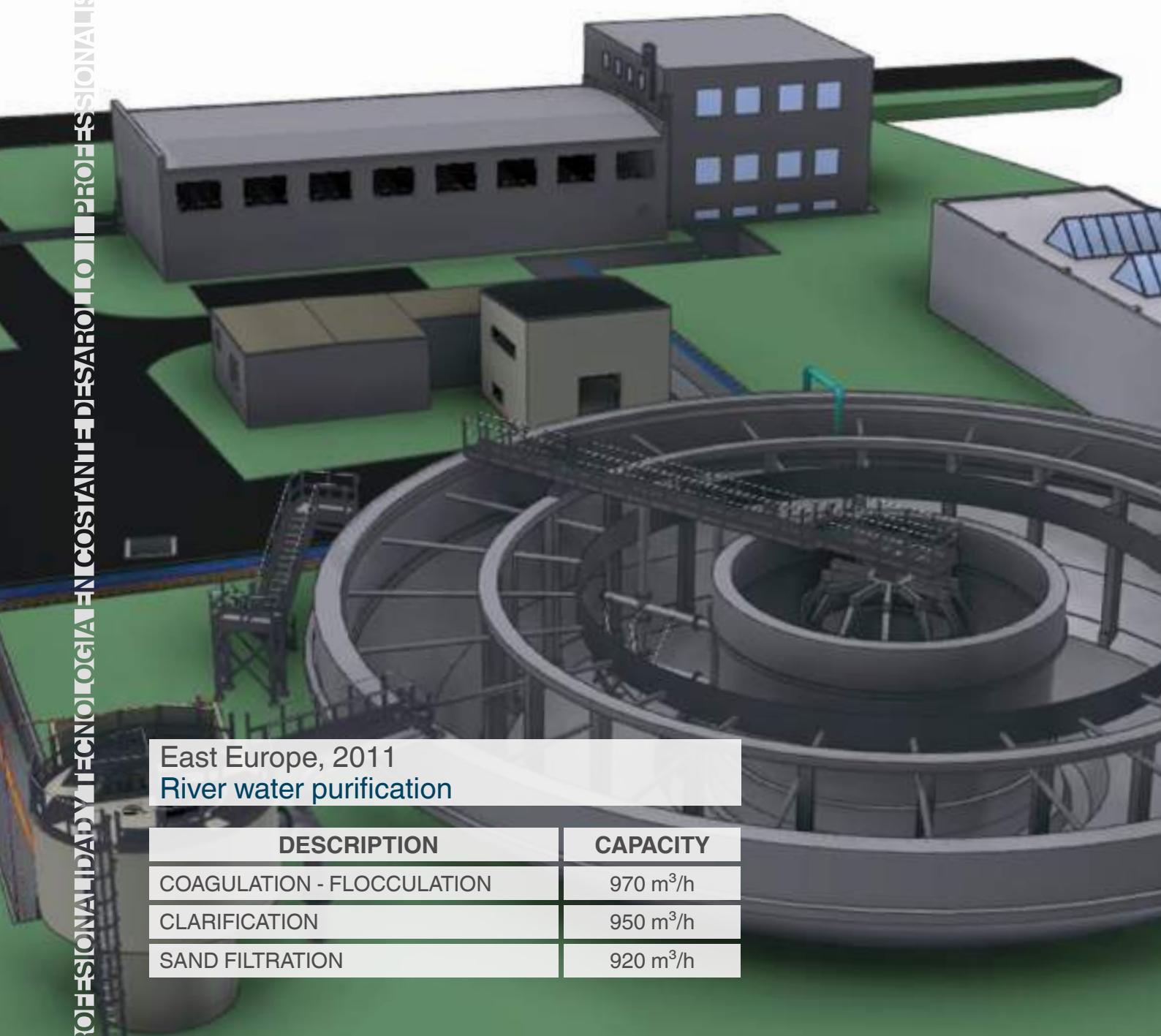


North Africa, 2011  
Municipal waste water purification

DESCRIPTION	CAPACITY
SCREENING	
GRIT AND GREASES REMOVAL	
NITRIFICATION	
DENITRIFICATION	
SETTLEMENT	
SLUDGE TICKENING	35,000 PE



# PHYSICAL-CHEMICAL & MEDIA FILTRATION



East Europe, 2011  
River water purification

DESCRIPTION	CAPACITY
COAGULATION - FLOCCULATION	970 m <sup>3</sup> /h
CLARIFICATION	950 m <sup>3</sup> /h
SAND FILTRATION	920 m <sup>3</sup> /h



# MEDIA FILTRATION & REVERSE OSMOSIS

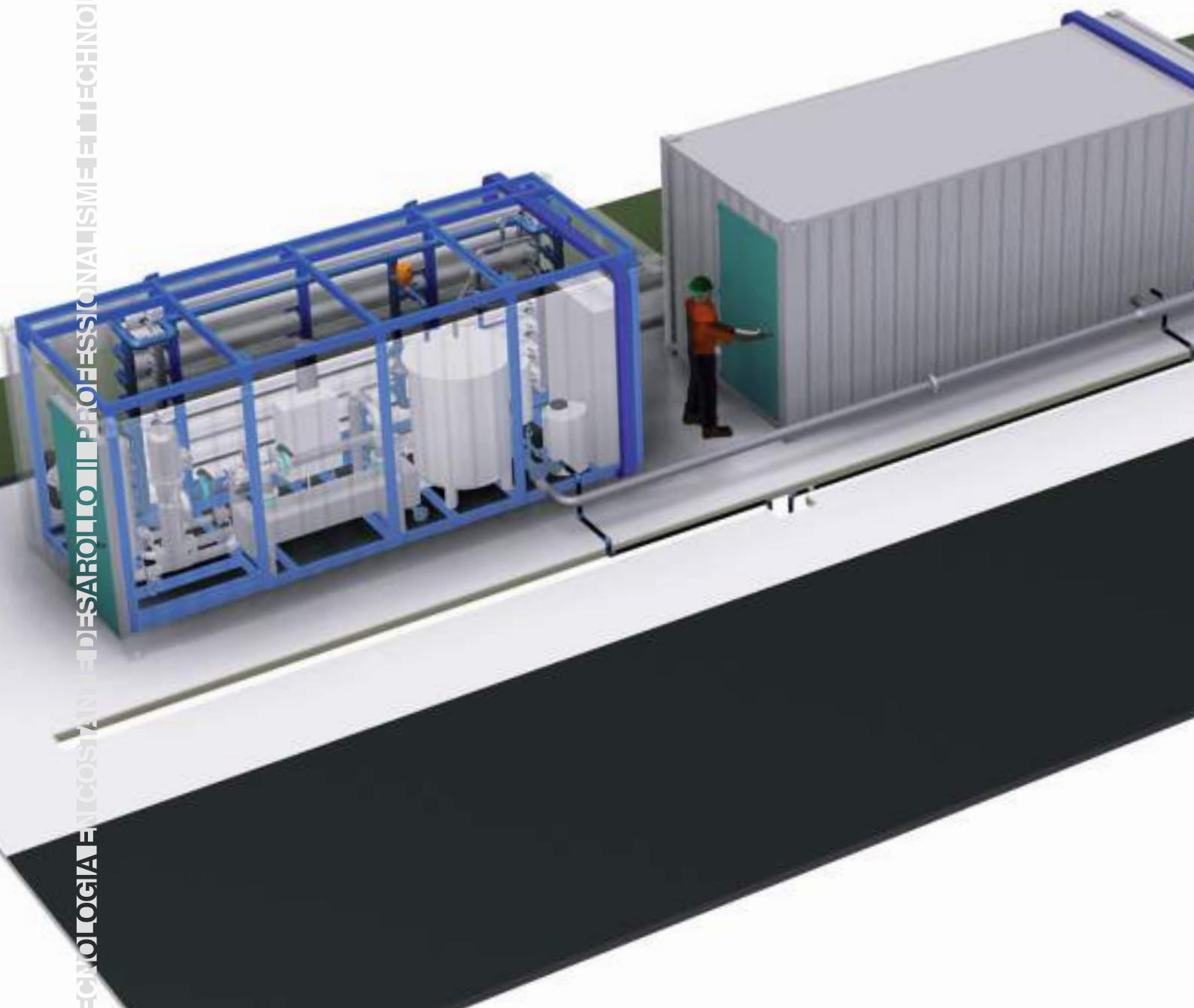


Italy, 2011  
Well water purification

DESCRIPTION	CAPACITY
MEDIA FILTRATION	42 m <sup>3</sup> /h
CARTRIDGE MICRO-FILTRATION	21 m <sup>3</sup> /h
REVERSE OSMOSIS	15 m <sup>3</sup> /h

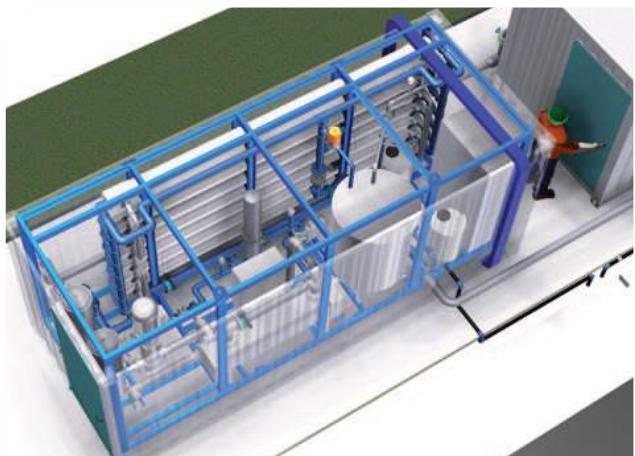
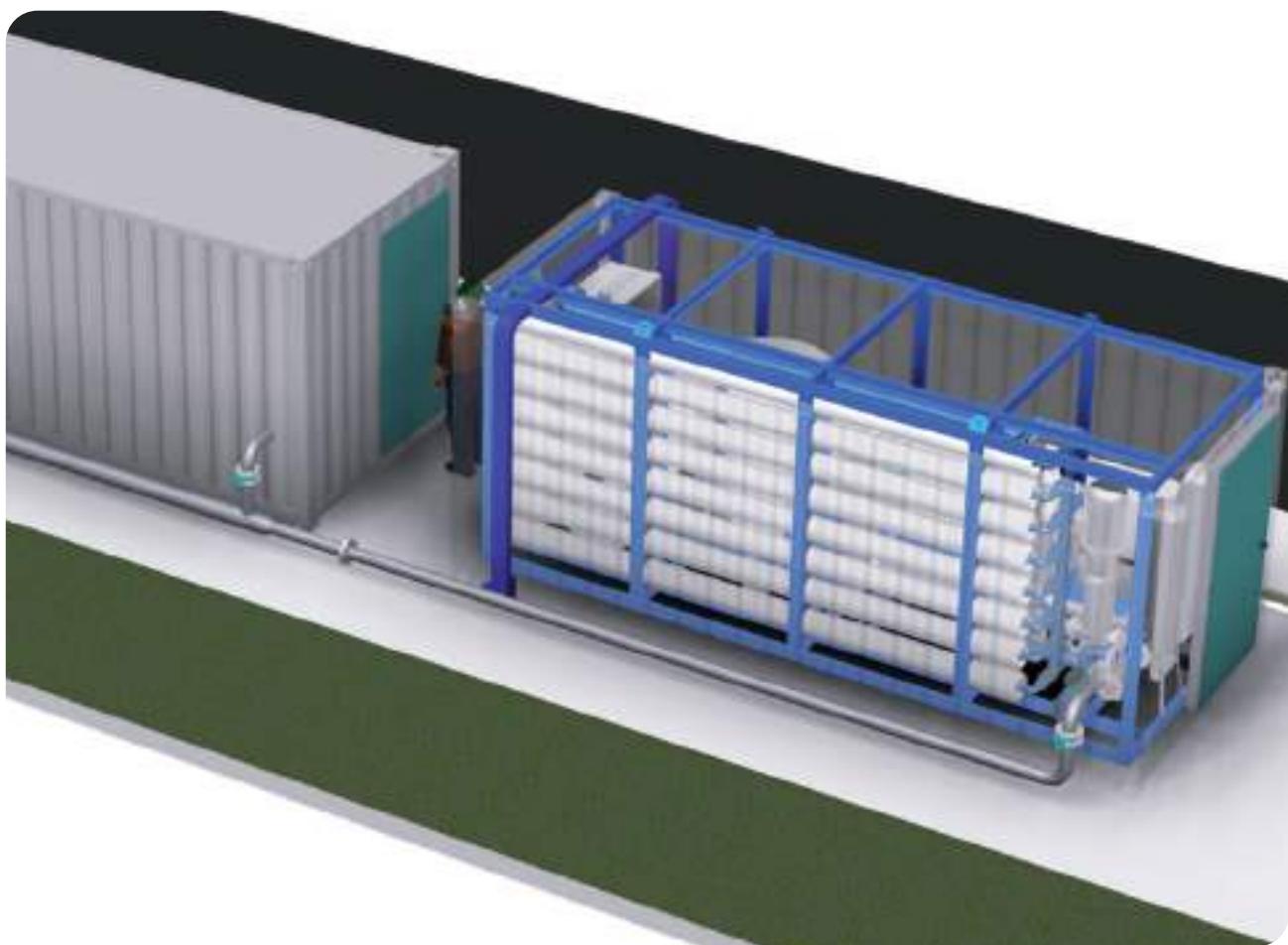


# REVERSE OSMOSIS



Italy, 2011  
Well water purification

DESCRIPTION	CAPACITY
CARTRIDGE MICRO-FILTRATION	86 m <sup>3</sup> /h
REVERSE OSMOSIS	64 m <sup>3</sup> /h



# ULTRAFILTRATION & REVERSE OSMOSIS

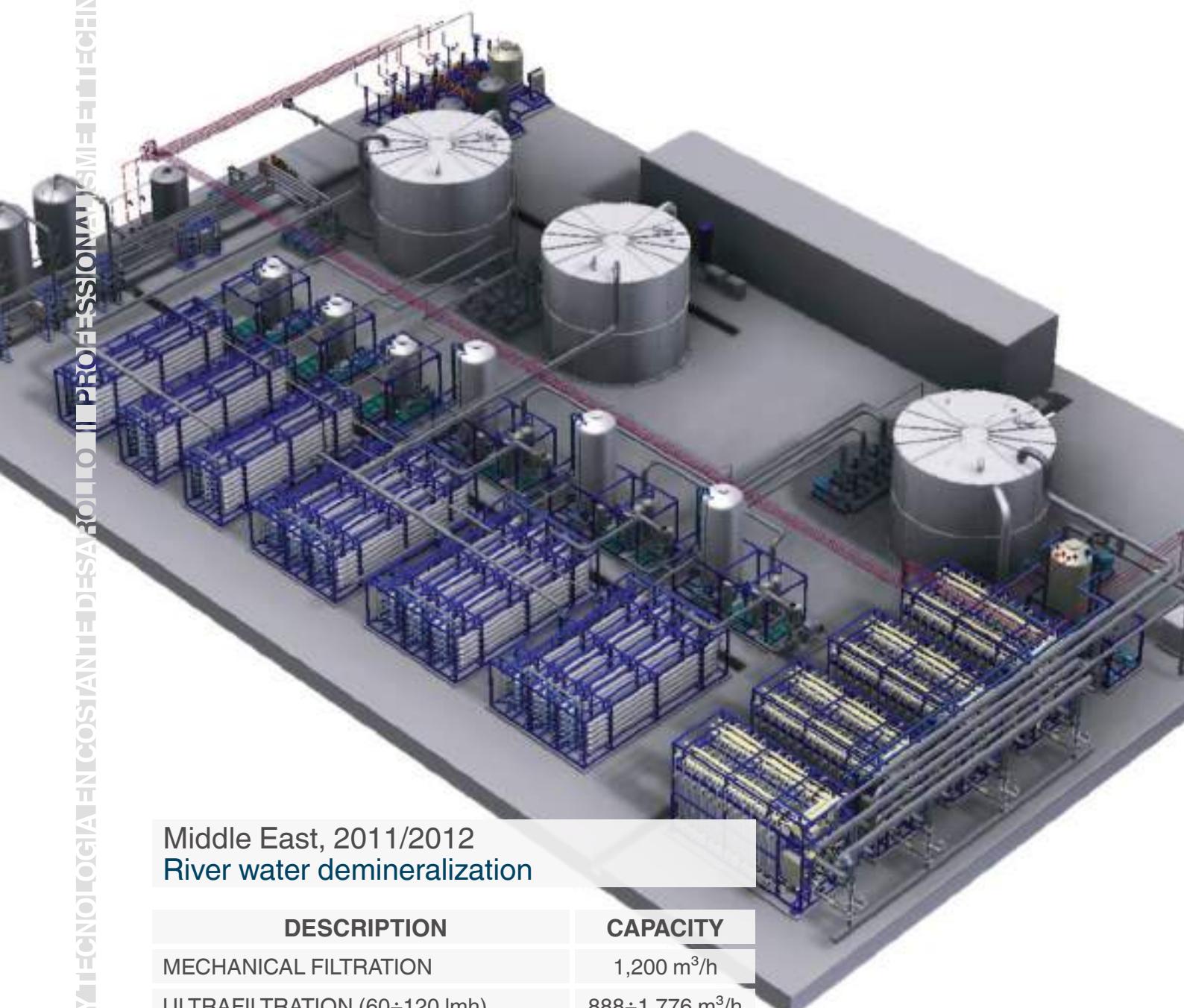


Italy, 2011  
Landfill leachate treatment

DESCRIPTION	CAPACITY
ULTRAFILTRATION	2.6 m <sup>3</sup> /h
CARTRIDGE MICRO-FILTRATION	3 m <sup>3</sup> /h
1 <sup>st</sup> PASS REVERSE OSMOSIS	2.6 m <sup>3</sup> /h
2 <sup>nd</sup> PASS REVERSE OSMOSIS	2 m <sup>3</sup> /h



# ULTRAFILTRATION, REVERSE OSMOSIS & ION EXCHANGE

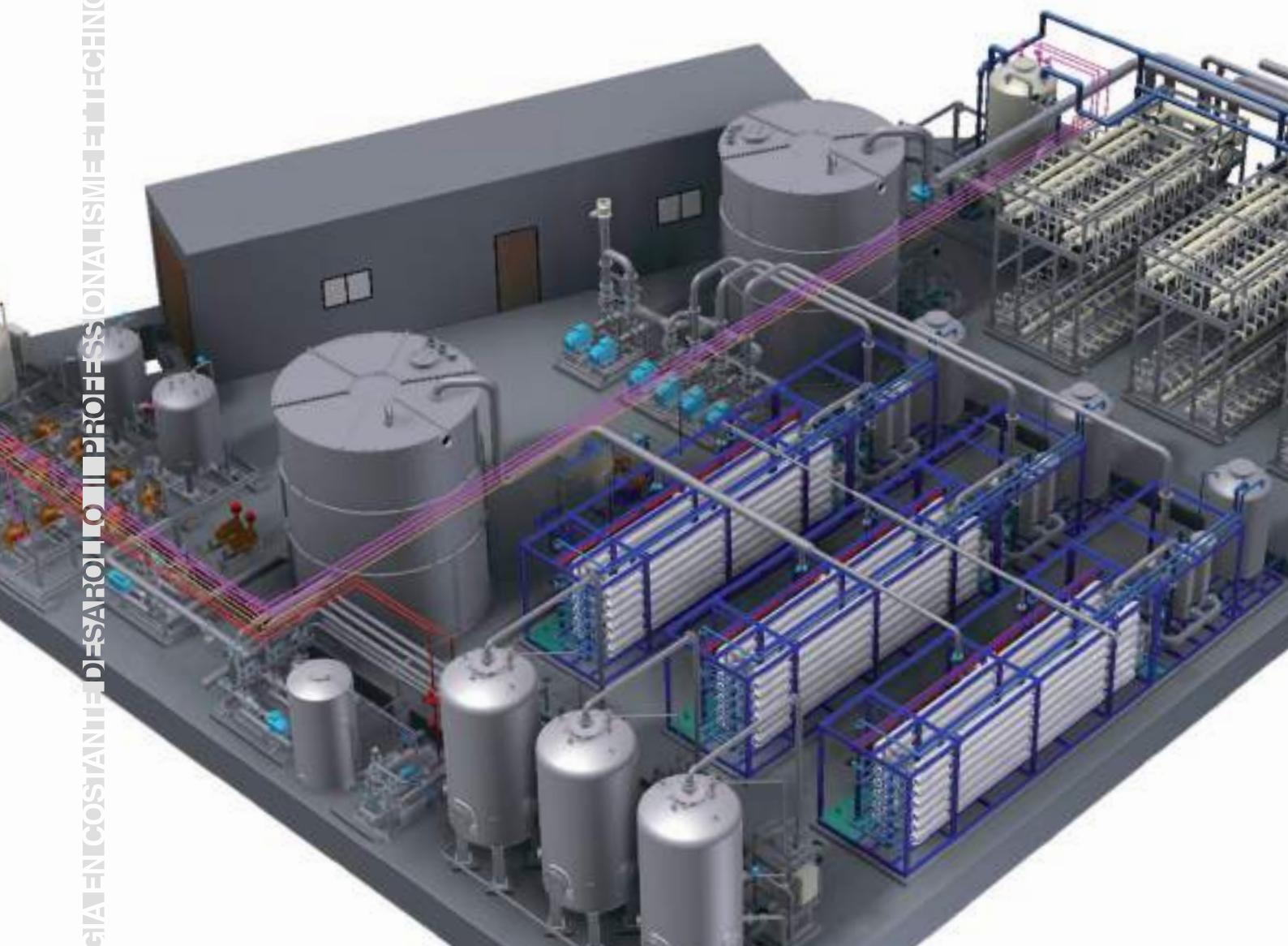


Middle East, 2011/2012  
River water demineralization

DESCRIPTION	CAPACITY
MECHANICAL FILTRATION	1,200 m <sup>3</sup> /h
ULTRAFILTRATION (60÷120 lmh)	888÷1,776 m <sup>3</sup> /h
CARTRIDGE MICRO-FILTRATION	792 m <sup>3</sup> /h
1 <sup>st</sup> PASS REVERSE OSMOSIS	531 m <sup>3</sup> /h
2 <sup>nd</sup> PASS REVERSE OSMOSIS	471 m <sup>3</sup> /h
POLISHING (30÷60 BV)	450÷900 m <sup>3</sup> /h



# ULTRAFILTRATION, REVERSE OSMOSIS & ION EXCHANGE

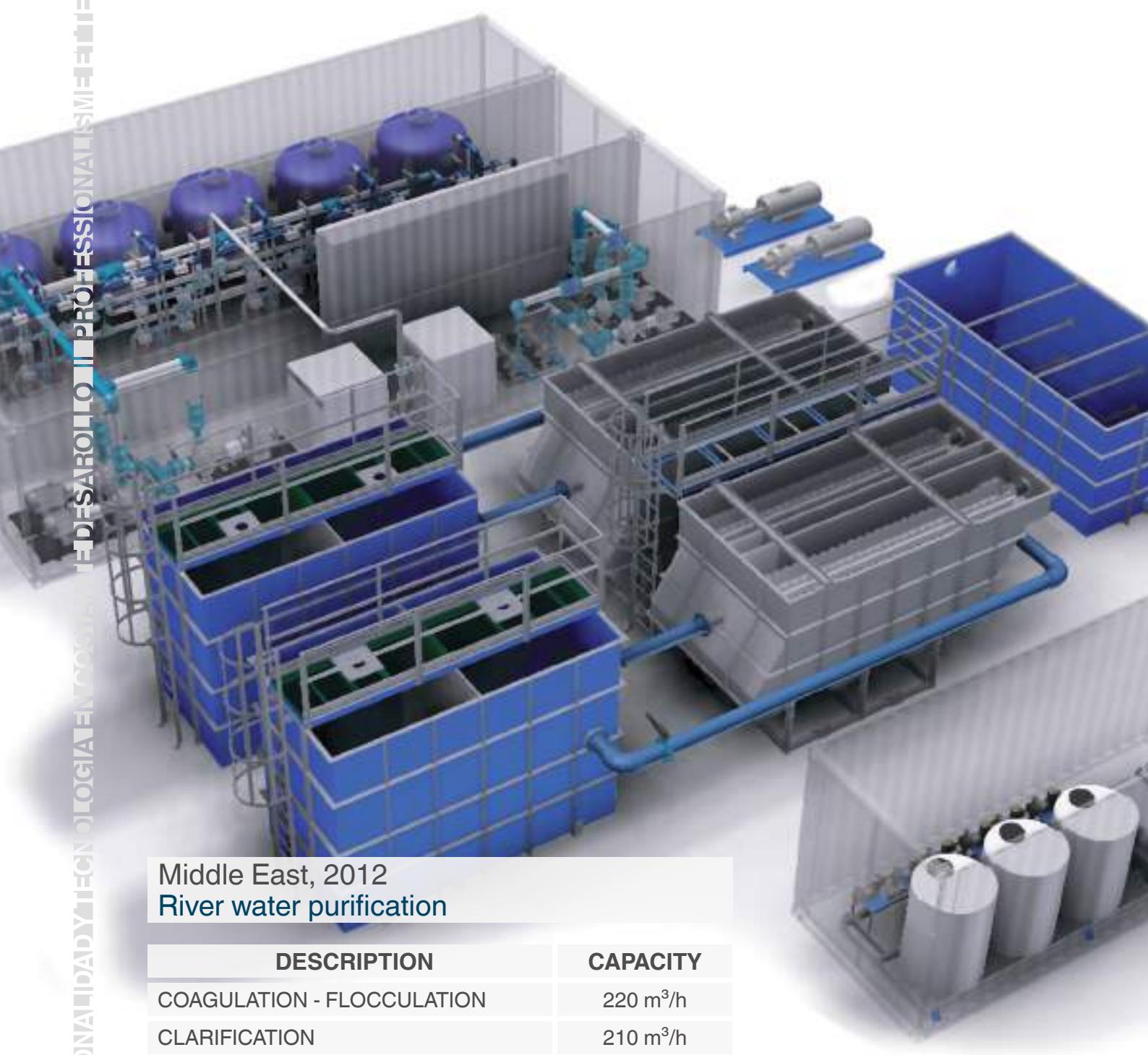


Middle East, 2011/2012  
River water demineralization

DESCRIPTION	CAPACITY
MECHANICAL FILTRATION	900 m <sup>3</sup> /h
ULTRAFILTRATION (60÷120 lmh)	665÷1,330 m <sup>3</sup> /h
CARTRIDGE MICRO-FILTRATION	528 m <sup>3</sup> /h
1 <sup>st</sup> PASS REVERSE OSMOSIS	240 m <sup>3</sup> /h
POLISHING (30÷60 BV)	292÷585 m <sup>3</sup> /h



# PHYSICAL-CHEMICAL & MEDIA FILTRATION

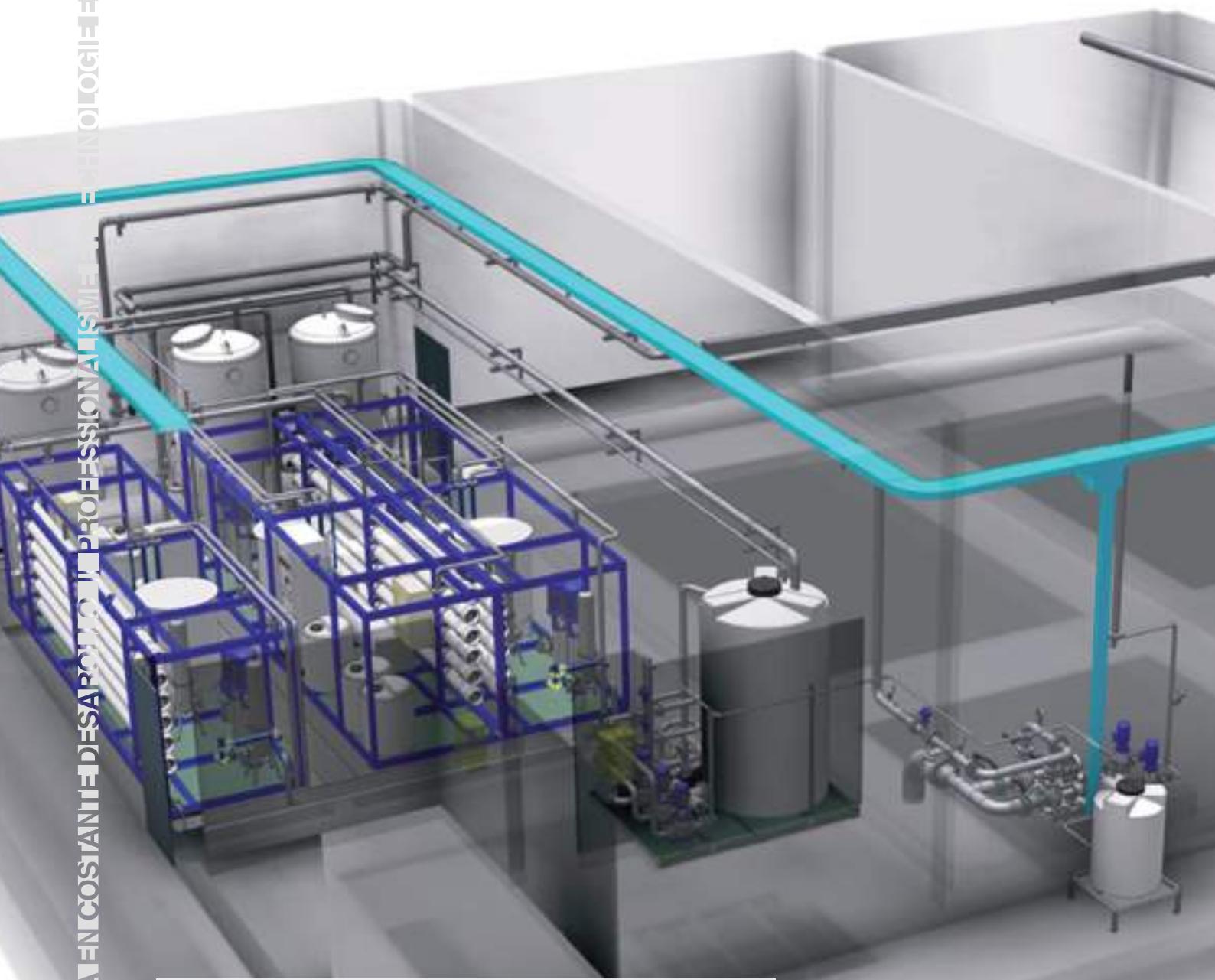


Middle East, 2012  
River water purification

DESCRIPTION	CAPACITY
COAGULATION - FLOCCULATION	220 m <sup>3</sup> /h
CLARIFICATION	210 m <sup>3</sup> /h
MEDIA FILTRATION	200 m <sup>3</sup> /h



# MEDIA FILTRATION, REVERSE OSMOSIS & ELECTRODEIONIZATION

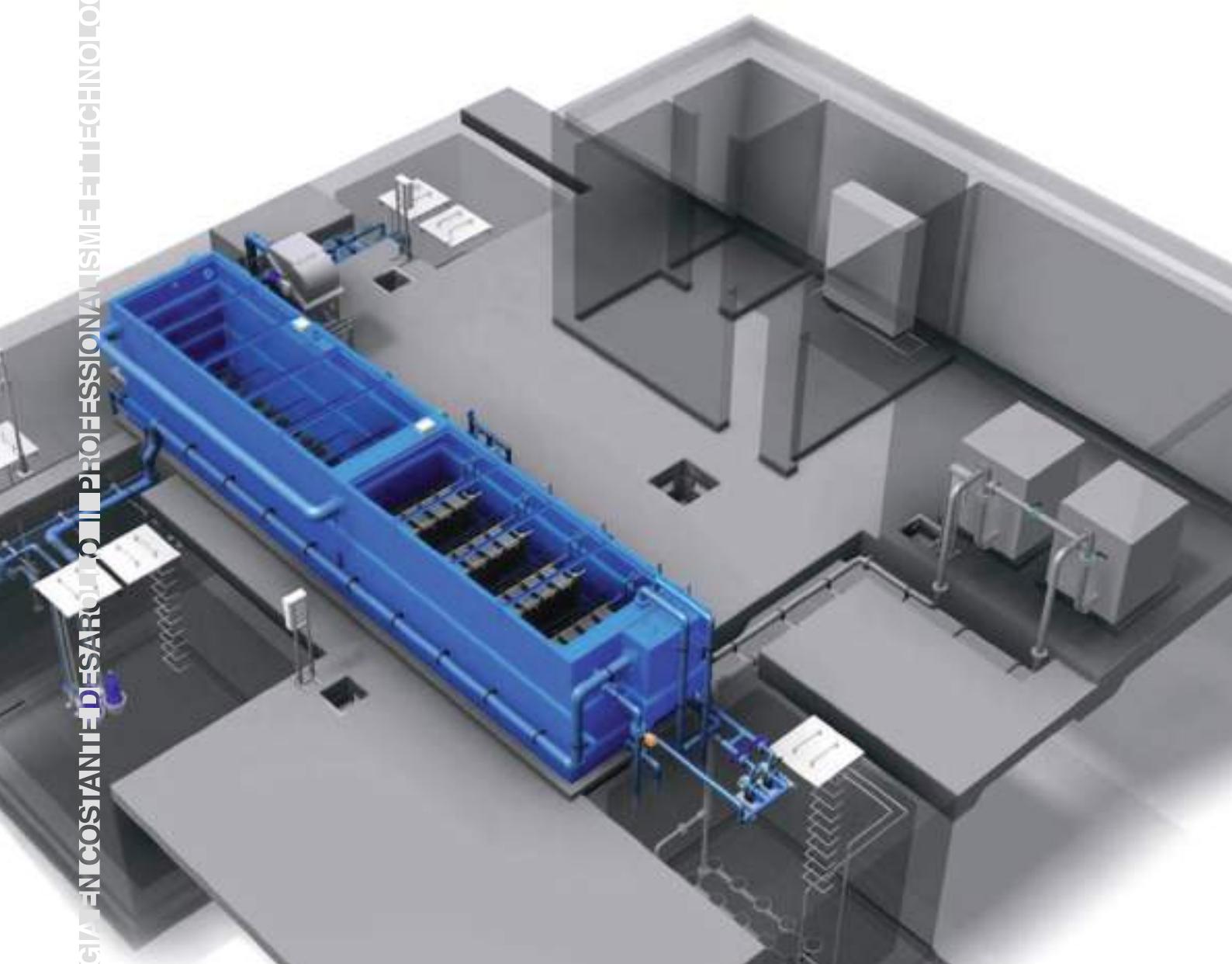


Italy, 2012  
Well water demineralization

DESCRIPTION	CAPACITY
MULTI-MEDIA FILTRATION	75 m <sup>3</sup> /h
CARTRIDGE MICRO-FILTRATION	75 m <sup>3</sup> /h
1 <sup>st</sup> PASS REVERSE OSMOSIS	56 m <sup>3</sup> /h
2 <sup>nd</sup> PASS REVERSE OSMOSIS	48 m <sup>3</sup> /h
ELECTRODEIONIZATION	45 m <sup>3</sup> /h
MEMBRANE OXYGEN SCAVENGING	2 m <sup>3</sup> /h

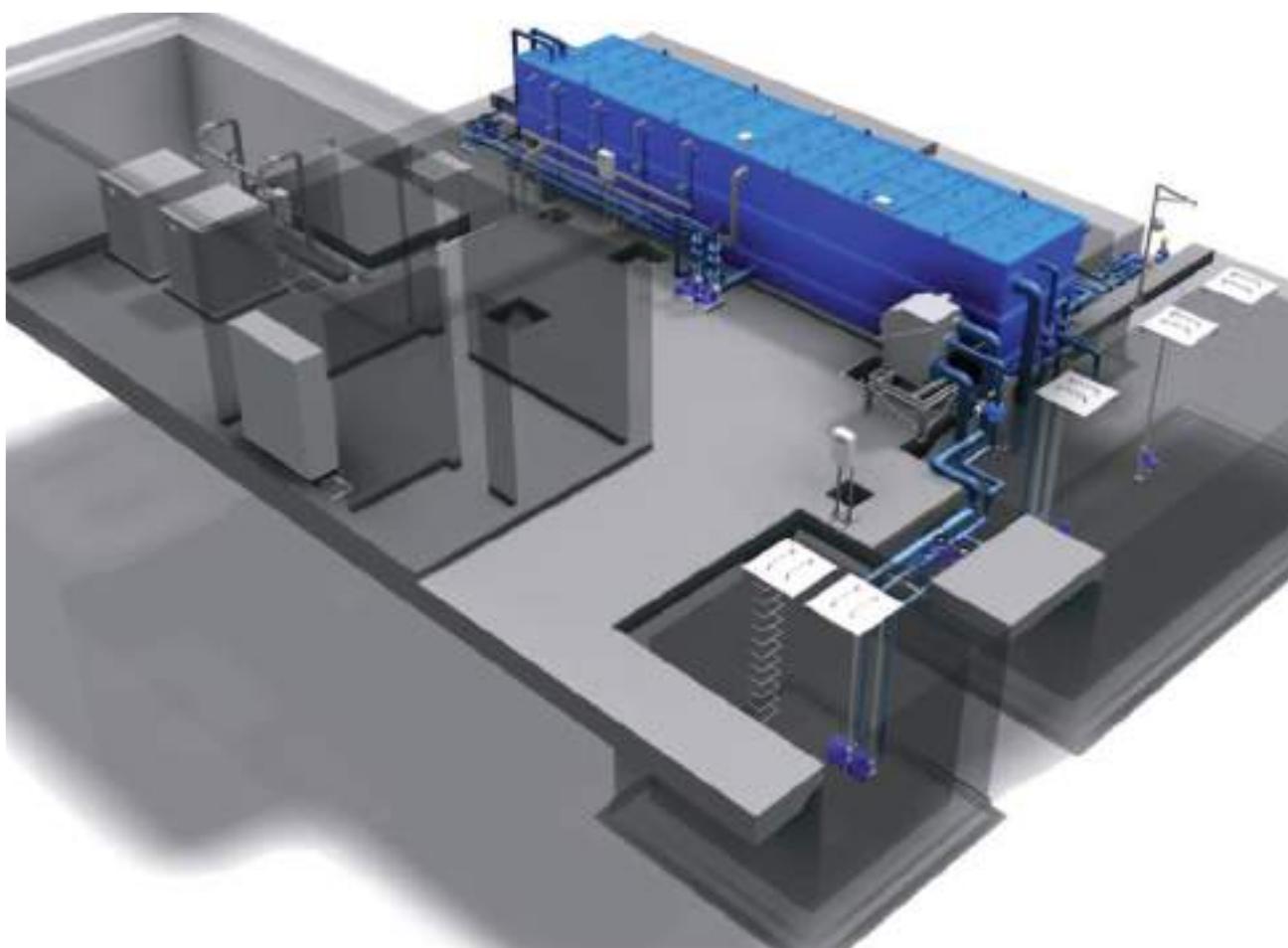


# BIOLOGICAL



Middle East, 2012  
Municipal waste water purification

DESCRIPTION	CAPACITY
SCREENING	
GRIT AND GREASES REMOVAL	
NITRIFICATION	
MEMBRANE BIOLOGICAL REACTION	10 m <sup>3</sup> /h
DISINFECTION	



# PHYSICAL-CHEMICAL & MEDIA FILTRATION



Italy, 2012  
Chemical industry waste water purification

DESCRIPTION	CAPACITY
EQUALIZATION	360 m <sup>3</sup> /h
CLARIFICATION	360 m <sup>3</sup> /h
SETTLEMENT	320 m <sup>3</sup> /h
FILTRATION	320 m <sup>3</sup> /h



# MEDIA FILTRATION, REVERSE OSMOSIS & ION EXCHANGE



Central America, 2012  
Sea water demineralization

DESCRIPTION	CAPACITY
MULTI-MEDIA FILTRATION (V=20 m/h)	420 m <sup>3</sup> /h
CARTRIDGE MICRO-FILTRATION	528 m <sup>3</sup> /h
1 <sup>st</sup> PASS REVERSE OSMOSIS	150 m <sup>3</sup> /h
2 <sup>nd</sup> PASS REVERSE OSMOSIS	135 m <sup>3</sup> /h
POLISHING (30÷60 BV)	180÷360 m <sup>3</sup> /h



# SPECIAL FILTRATION & MEDIA FILTRATION



Italy, 2012  
Condensate steam oil removal

DESCRIPTION	CAPACITY
OLEOPHILIC RESIN FILTRATION	180 m <sup>3</sup> /h
ACTIVATED CARBON FILTRATION	180 m <sup>3</sup> /h



# MEDIA FILTRATION & REVERSE OSMOSIS

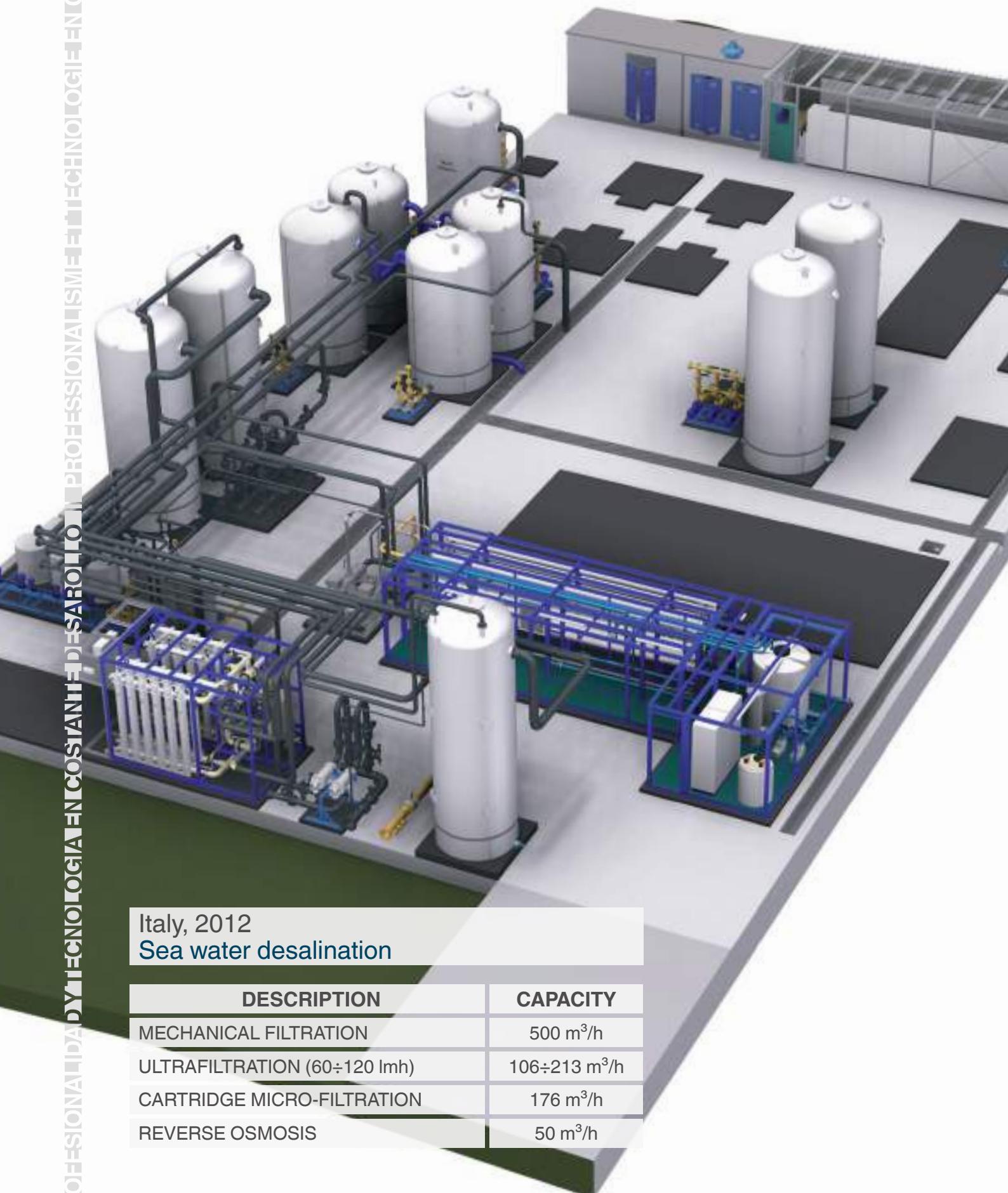


Middle East, 2012  
Well water desalination

DESCRIPTION	CAPACITY
MEDIA FILTRATION (V=20 m/h)	120 m <sup>3</sup> /h
GAC FILTRATION (V=20 m/h)	80 m <sup>3</sup> /h
CARTRIDGE MICRO-FILTRATION	60 m <sup>3</sup> /h
REVERSE OSMOSIS	30 m <sup>3</sup> /h



# ULTRAFILTRATION & REVERSE OSMOSIS



Italy, 2012  
Sea water desalination

DESCRIPTION	CAPACITY
MECHANICAL FILTRATION	500 m <sup>3</sup> /h
ULTRAFILTRATION (60÷120 lmh)	106÷213 m <sup>3</sup> /h
CARTRIDGE MICRO-FILTRATION	176 m <sup>3</sup> /h
REVERSE OSMOSIS	50 m <sup>3</sup> /h



# ULTRAFILTRATION & REVERSE OSMOSIS

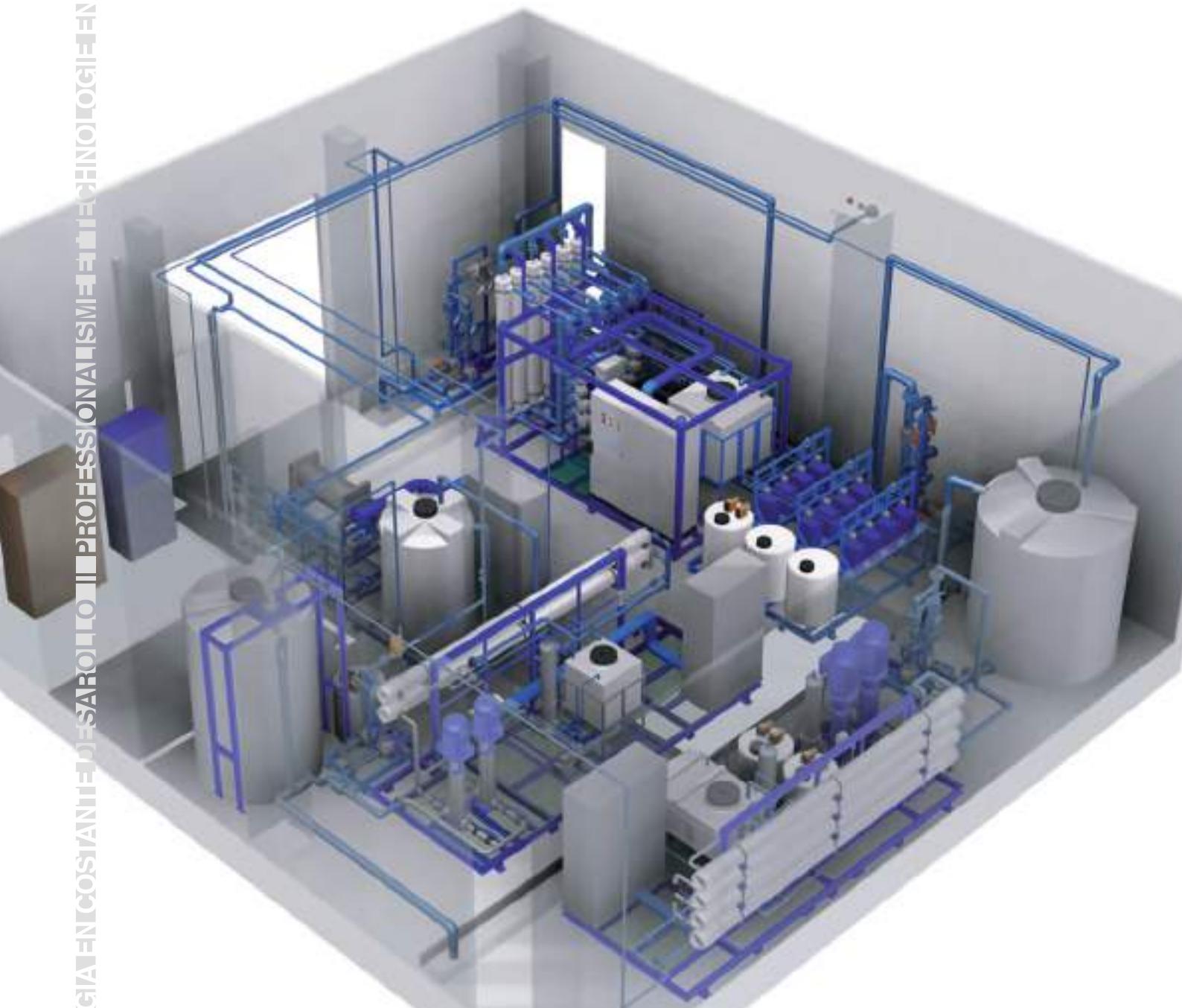


Italy, 2012  
Power station waste water reuse

DESCRIPTION	CAPACITY
MECHANICAL FILTRATION	500 m <sup>3</sup> /h
ACTIVATED CARBON FILTRATION	224÷748 m <sup>3</sup> /h
ULTRAFILTRATION (60÷120 lmh)	213÷426 m <sup>3</sup> /h
CARTRIDGE MICRO-FILTRATION	176 m <sup>3</sup> /h
REVERSE OSMOSIS	90 m <sup>3</sup> /h



# ULTRAFILTRATION, REVERSE OSMOSIS & ELECTRODEIONIZATION

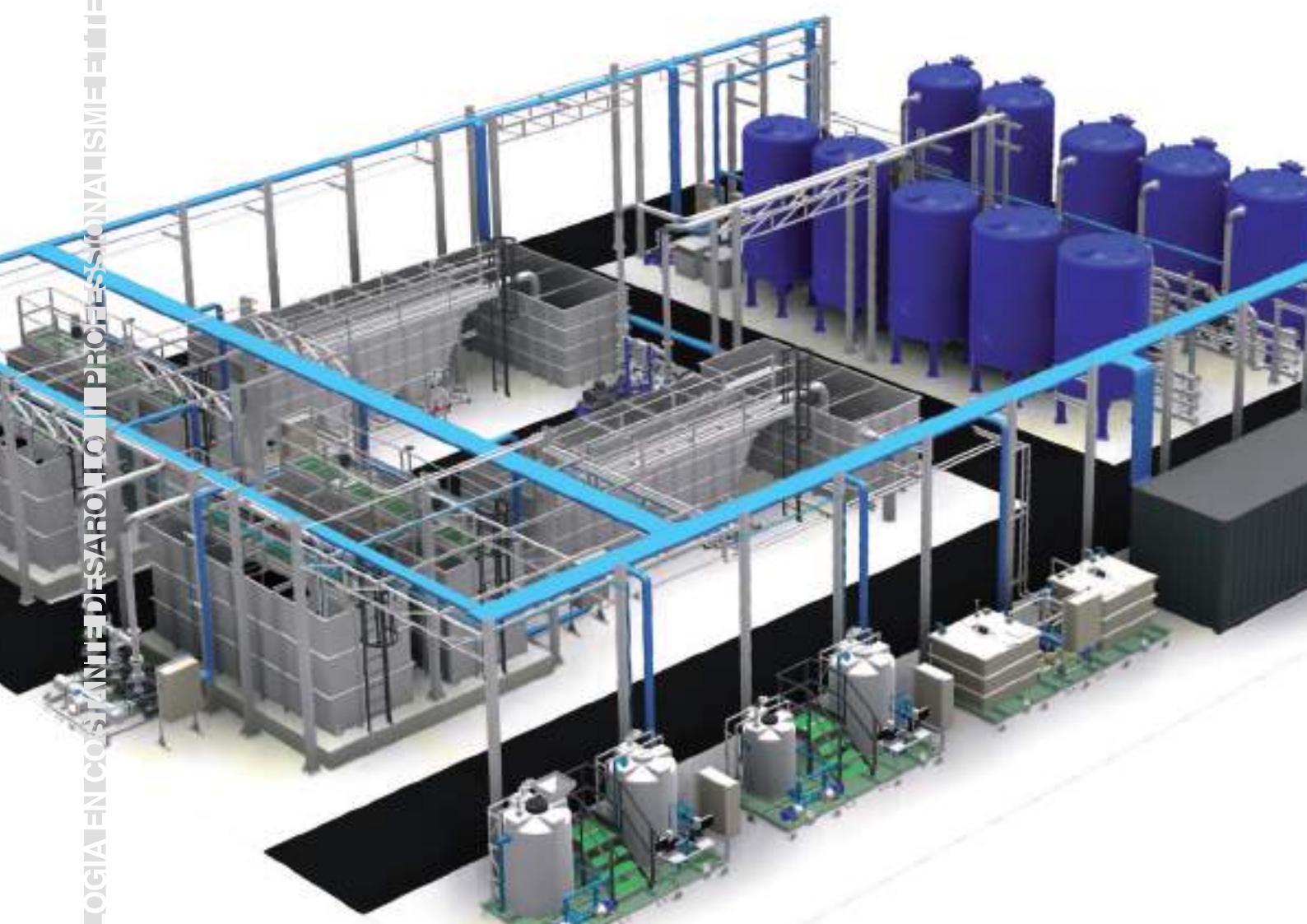


Italy, 2012  
Well water demineralization

DESCRIPTION	CAPACITY
MECHANICAL FILTRATION	25 m <sup>3</sup> /h
ULTRAFILTRATION (60÷120 lmh)	28÷56 m <sup>3</sup> /h
1 <sup>st</sup> PASS REVERSE OSMOSIS	18 m <sup>3</sup> /h
2 <sup>nd</sup> PASS REVERSE OSMOSIS	8.5 m <sup>3</sup> /h
ELECTRODEIONIZATION	8 m <sup>3</sup> /h



# PHYSICAL-CHEMICAL & MEDIA FILTRATION

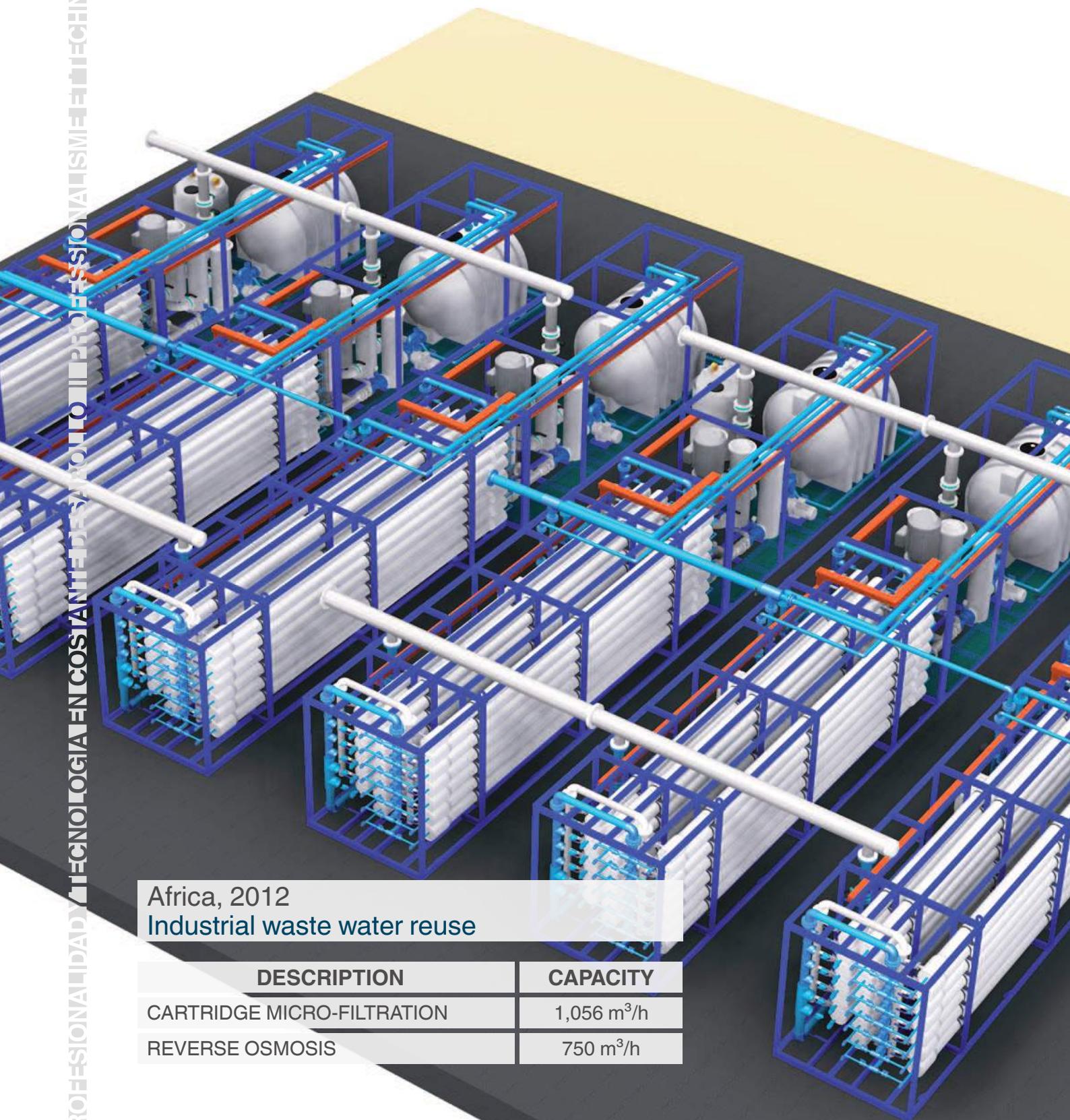


Middle East, 2012  
River water purification

DESCRIPTION	CAPACITY
COAGULATION - FLOCCULATION	350 m <sup>3</sup> /h
CLARIFICATION	350 m <sup>3</sup> /h
DUAL-MEDIA FILTRATION	330 m <sup>3</sup> /h
GAC FILTRATION	320 m <sup>3</sup> /h



# REVERSE OSMOSIS

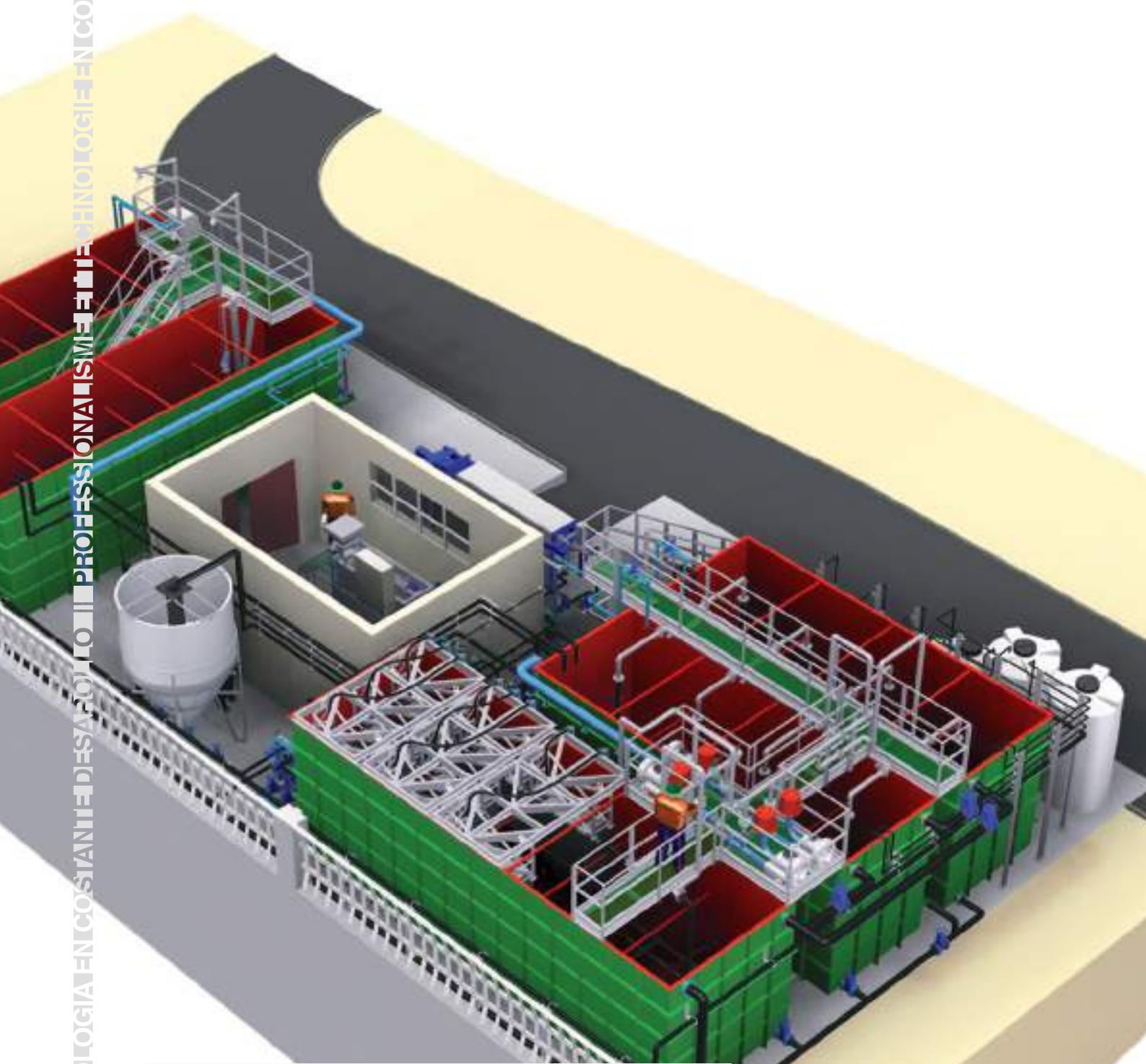


Africa, 2012  
Industrial waste water reuse

DESCRIPTION	CAPACITY
CARTRIDGE MICRO-FILTRATION	1,056 m <sup>3</sup> /h
REVERSE OSMOSIS	750 m <sup>3</sup> /h



# BIOLOGICAL

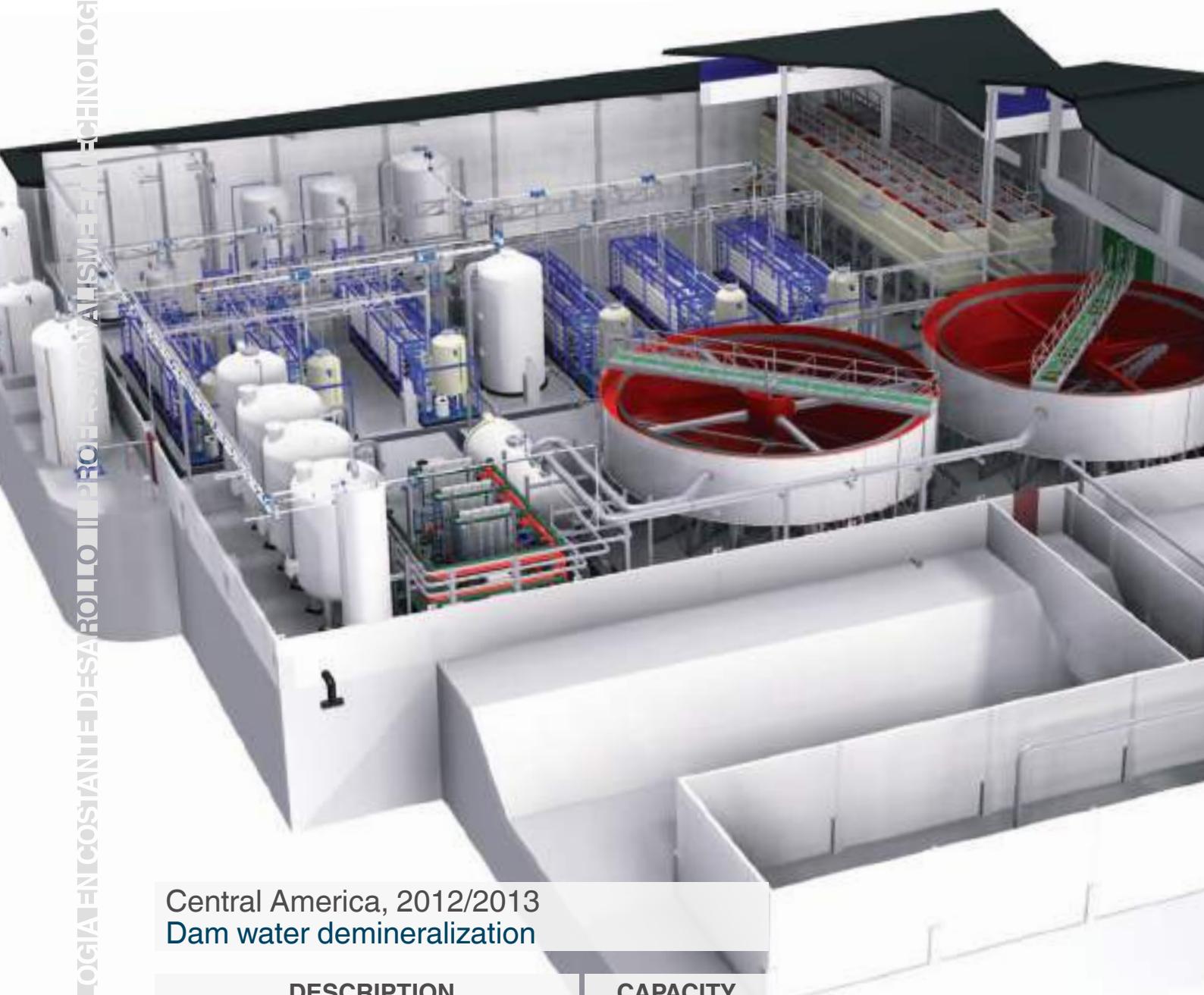


Central America, 2012/2013  
Pharmaceutical industry waste water purification

DESCRIPTION	CAPACITY
SCREENING	
MOBILE BED BIOREACTION	
MEMBRANE BIOLOGICAL REACTION	
SLUDGE TICKENING	10 m <sup>3</sup> /h



# PHYSICAL-CHEMICAL, MEDIA FILTRATION, ULTRAFILTRATION, REVERSE OSMOSIS & ION EXCHANGE

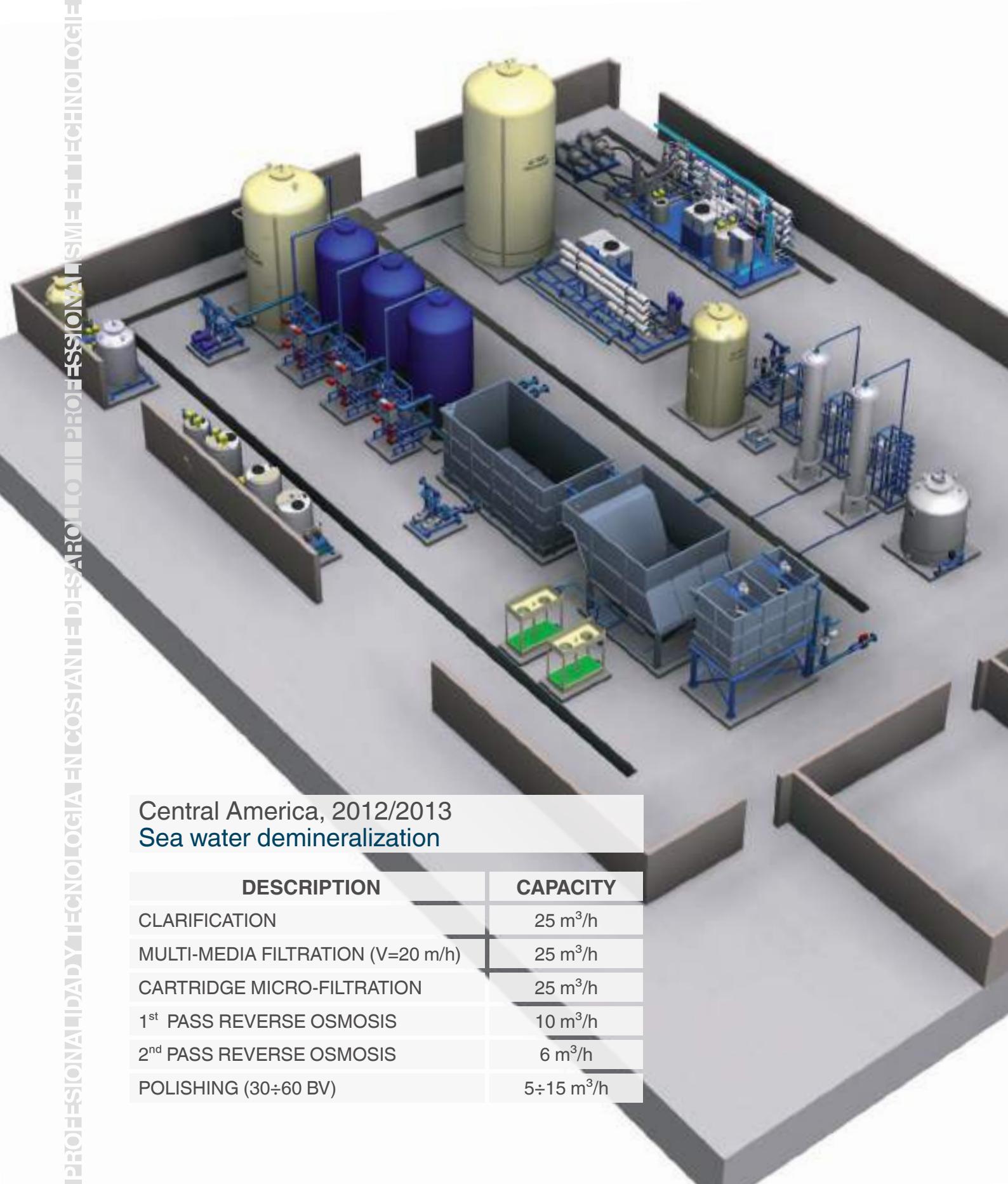


Central America, 2012/2013  
Dam water demineralization

DESCRIPTION	CAPACITY
CLARIFICATION	430 m <sup>3</sup> /h
MULTI-MEDIA FILTRATION (V=20 m/h)	420 m <sup>3</sup> /h
CARTRIDGE MICRO-FILTRATION	400 m <sup>3</sup> /h
ULTRAFILTRATION	282 m <sup>3</sup> /h
1 <sup>st</sup> PASS REVERSE OSMOSIS	225 m <sup>3</sup> /h
2 <sup>nd</sup> PASS REVERSE OSMOSIS	200 m <sup>3</sup> /h
POLISHING (30÷60 BV)	240÷480 m <sup>3</sup> /h



# PHYSICAL-CHEMICAL, MEDIA FILTRATION, REVERSE OSMOSIS & ION EXCHANGE



Central America, 2012/2013  
Sea water demineralization

DESCRIPTION	CAPACITY
CLARIFICATION	25 m <sup>3</sup> /h
MULTI-MEDIA FILTRATION (V=20 m/h)	25 m <sup>3</sup> /h
CARTRIDGE MICRO-FILTRATION	25 m <sup>3</sup> /h
1 <sup>st</sup> PASS REVERSE OSMOSIS	10 m <sup>3</sup> /h
2 <sup>nd</sup> PASS REVERSE OSMOSIS	6 m <sup>3</sup> /h
POLISHING (30÷60 BV)	5÷15 m <sup>3</sup> /h



# PHYSICAL-CHEMICAL & MEDIA FILTRATION

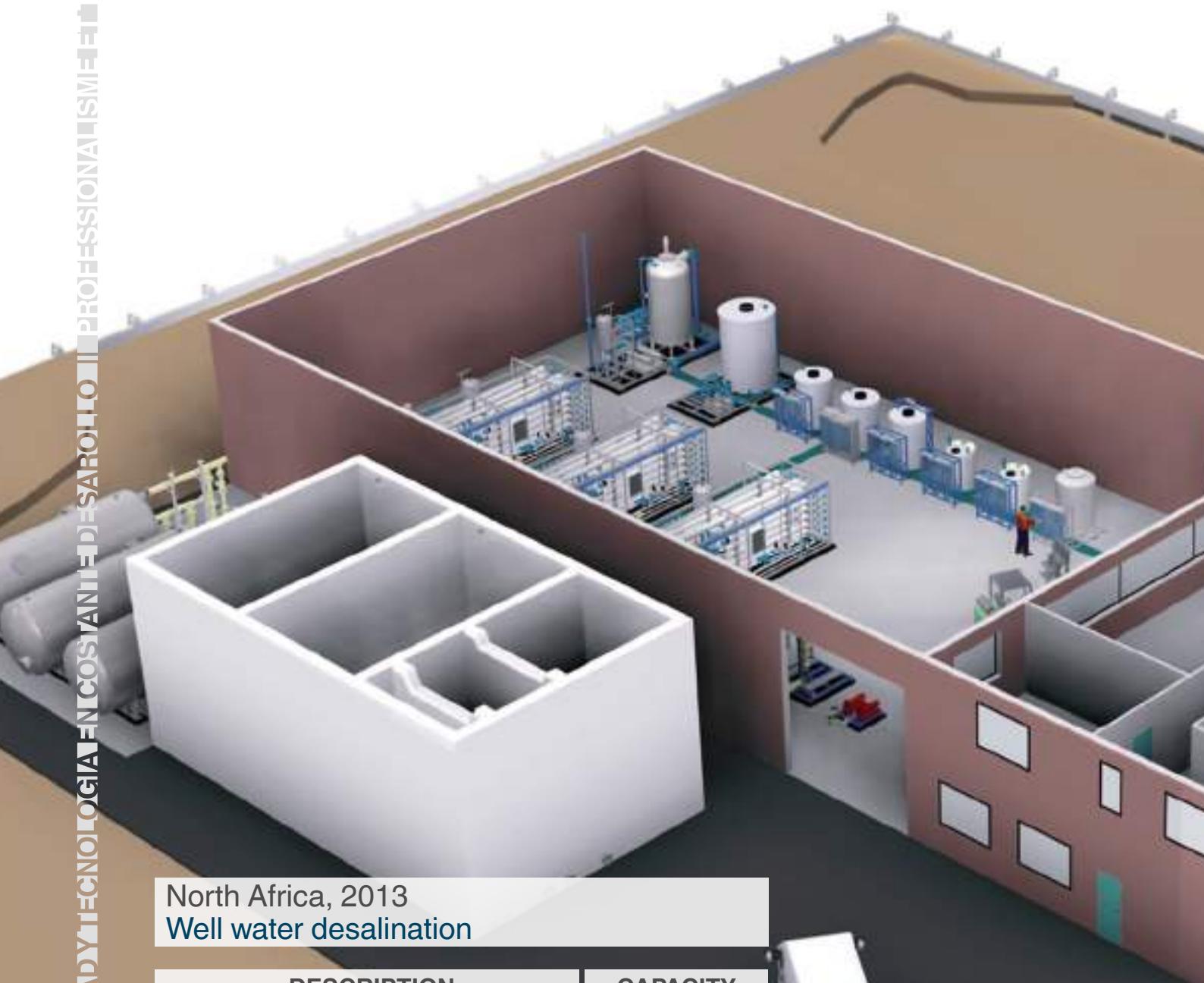


Europe, 2012/2013  
River water purification

DESCRIPTION	CAPACITY
COAGULATION - FLOCCULATION	1,300 m <sup>3</sup> /h
CLARIFICATION	1,290 m <sup>3</sup> /h
MEDIA FILTRATION	1,270 m <sup>3</sup> /h
GAC FILTRATION	1,260 m <sup>3</sup> /h



# MEDIA FILTRATION & REVERSE OSMOSIS

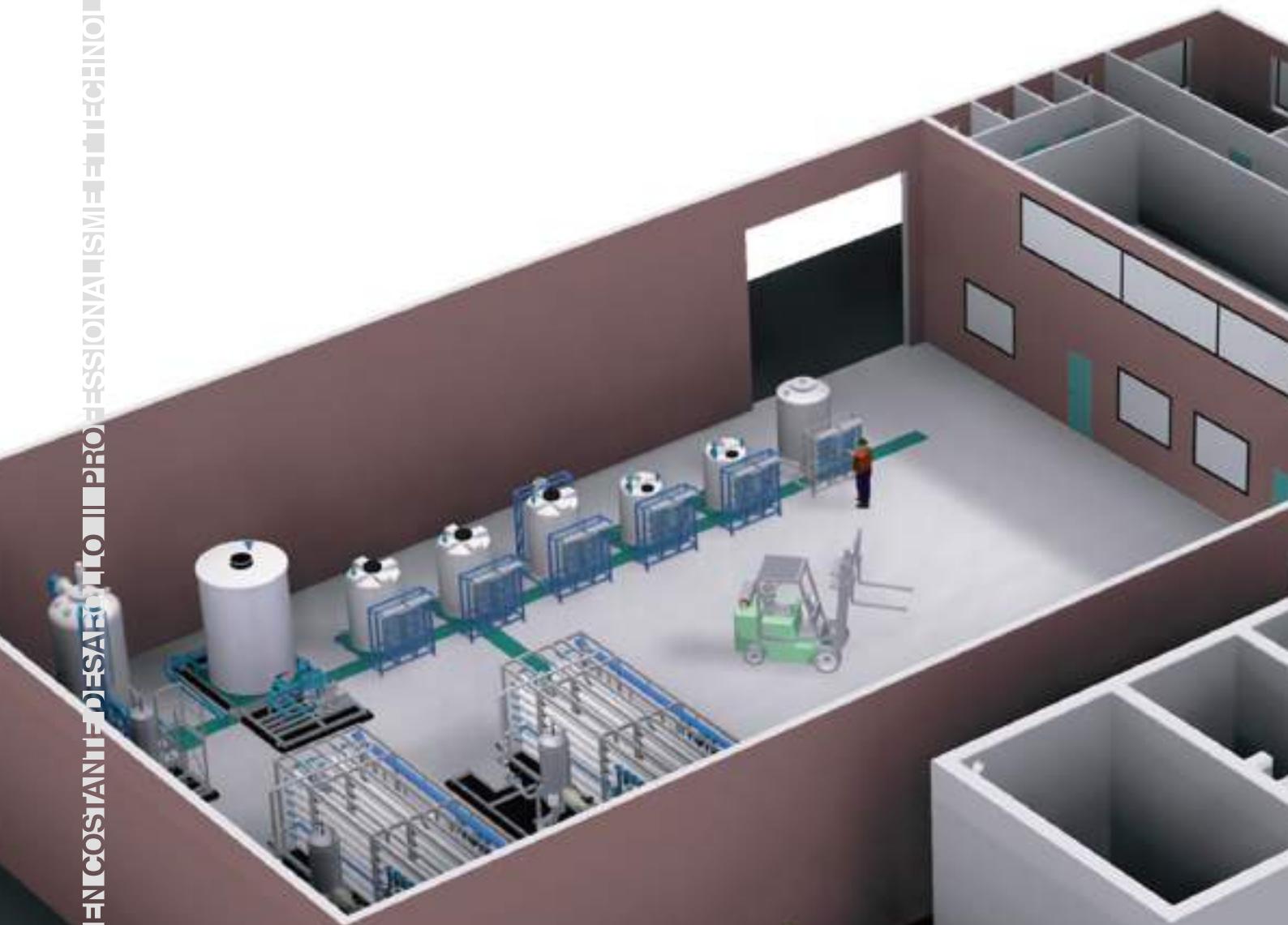


North Africa, 2013  
Well water desalination

DESCRIPTION	CAPACITY
MEDIA FILTRATION (V=20 m/h)	930 m <sup>3</sup> /h
CARTRIDGE MICRO-FILTRATION	720 m <sup>3</sup> /h
REVERSE OSMOSIS	250 m <sup>3</sup> /h



# MEDIA FILTRATION & REVERSE OSMOSIS

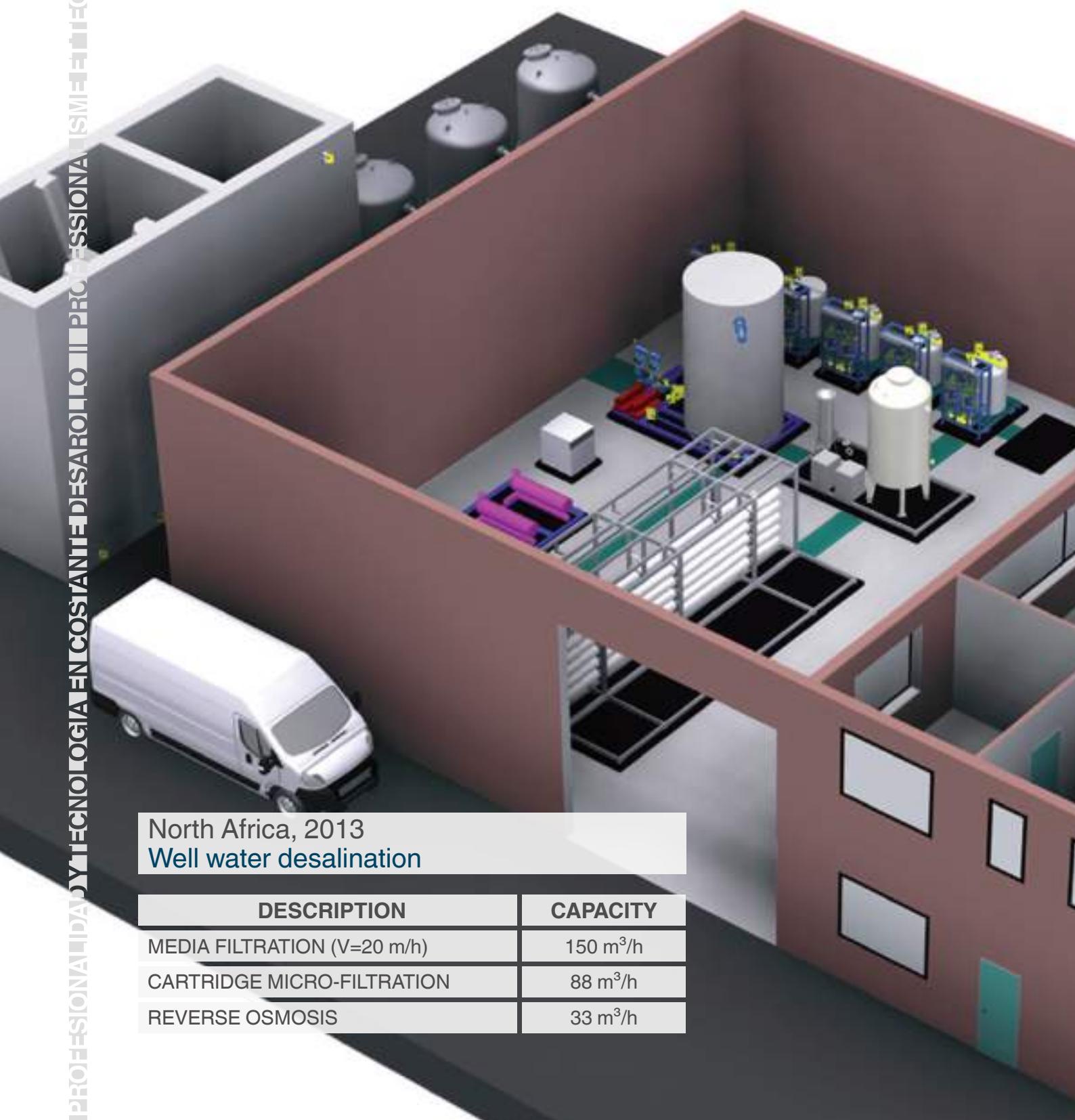


North Africa, 2013  
Well water desalination

DESCRIPTION	CAPACITY
MEDIA FILTRATION (V=20 m/h)	642 m <sup>3</sup> /h
CARTRIDGE MICRO-FILTRATION	480 m <sup>3</sup> /h
REVERSE OSMOSIS	167 m <sup>3</sup> /h



# MEDIA FILTRATION & REVERSE OSMOSIS



North Africa, 2013  
Well water desalination

DESCRIPTION	CAPACITY
MEDIA FILTRATION (V=20 m/h)	150 m <sup>3</sup> /h
CARTRIDGE MICRO-FILTRATION	88 m <sup>3</sup> /h
REVERSE OSMOSIS	33 m <sup>3</sup> /h



# ION EXCHANGE

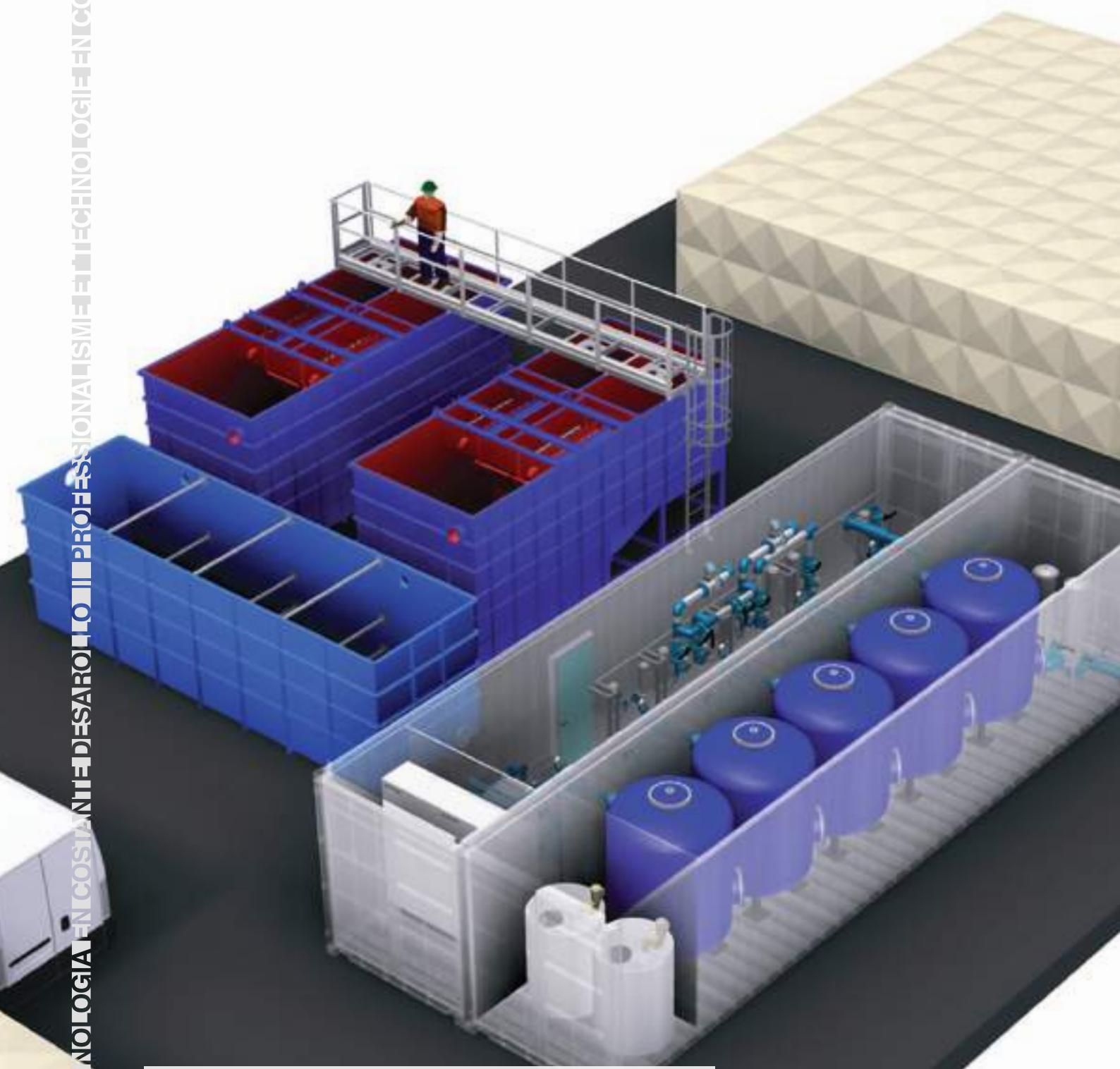


South America, 2013  
Process water demineralization

DESCRIPTION	CAPACITY
MECHANICAL FILTRATION	60 m <sup>3</sup> /h
ORGANIC SCAVENGING	30 m <sup>3</sup> /h
CATION EXCHANGE	30 m <sup>3</sup> /h
ANION EXCHANGE	30 m <sup>3</sup> /h



# PHYSICAL-CHEMICAL & MEDIA FILTRATION



Middle east, 2013  
River water purification

DESCRIPTION	CAPACITY
COAGULATION - FLOCCULATION	105 m <sup>3</sup> /h
SETTLEMENT	105 m <sup>3</sup> /h
MEDIA FILTRATION	105 m <sup>3</sup> /h



# PHYSICAL-CHEMICAL

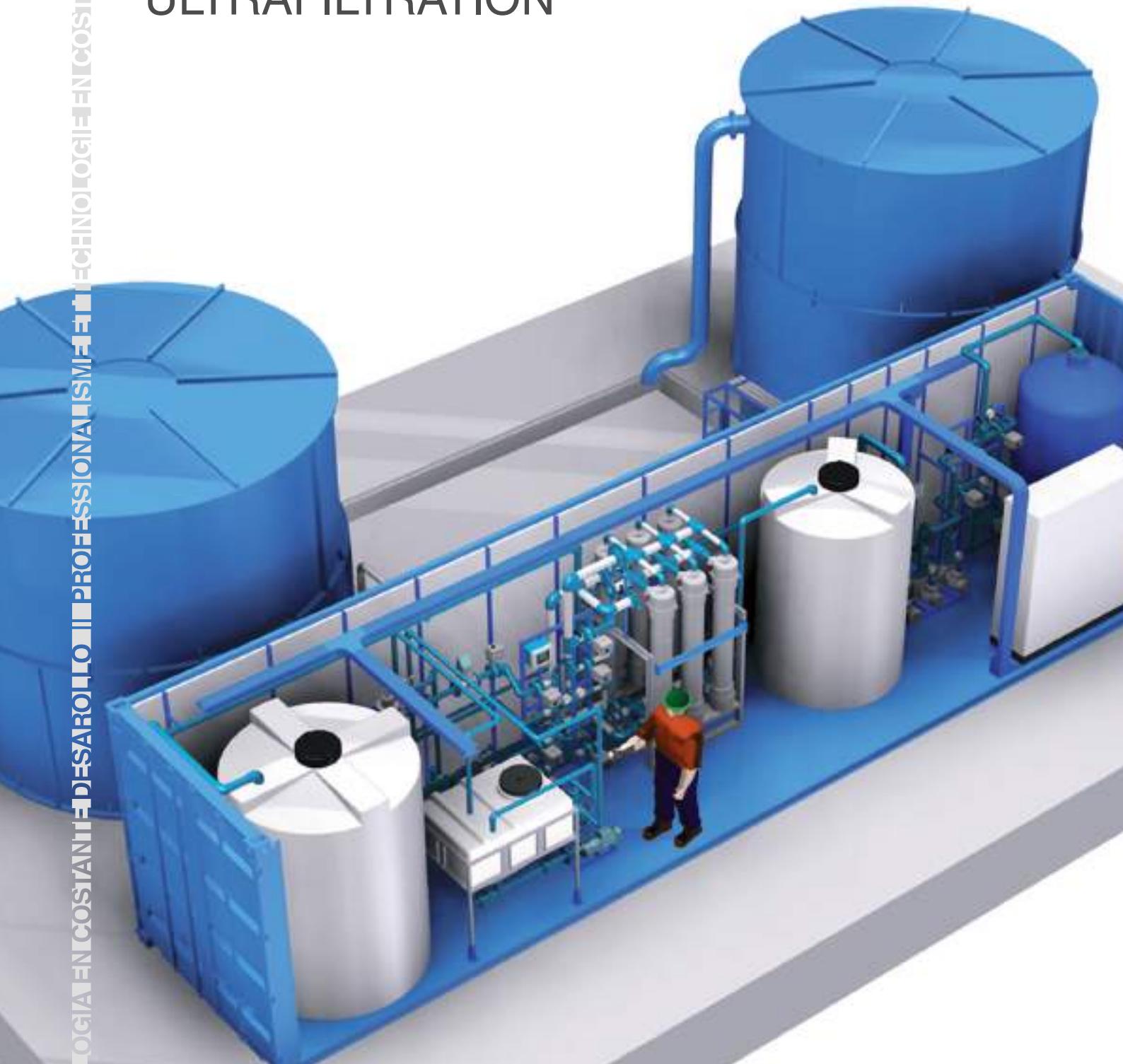


North Africa, 2013  
Refinery waste water purification

DESCRIPTION	CAPACITY
SEDI-FLOTATION	30 m <sup>3</sup> /h
COALESCENCE	30 m <sup>3</sup> /h



# ULTRAFILTRATION



Central America, 2013  
Dam water purification

DESCRIPTION	CAPACITY
MECHANICAL FILTRATION	40 m <sup>3</sup> /h
ULTRAFILTRATION (60-120 lmh)	18÷36 m <sup>3</sup> /h
CARTRIDGE MICRO-FILTRATION	28 m <sup>3</sup> /h
GAC FILTRATION	15 m <sup>3</sup> /h



# MEDIA FILTRATION & REVERSE OSMOSIS

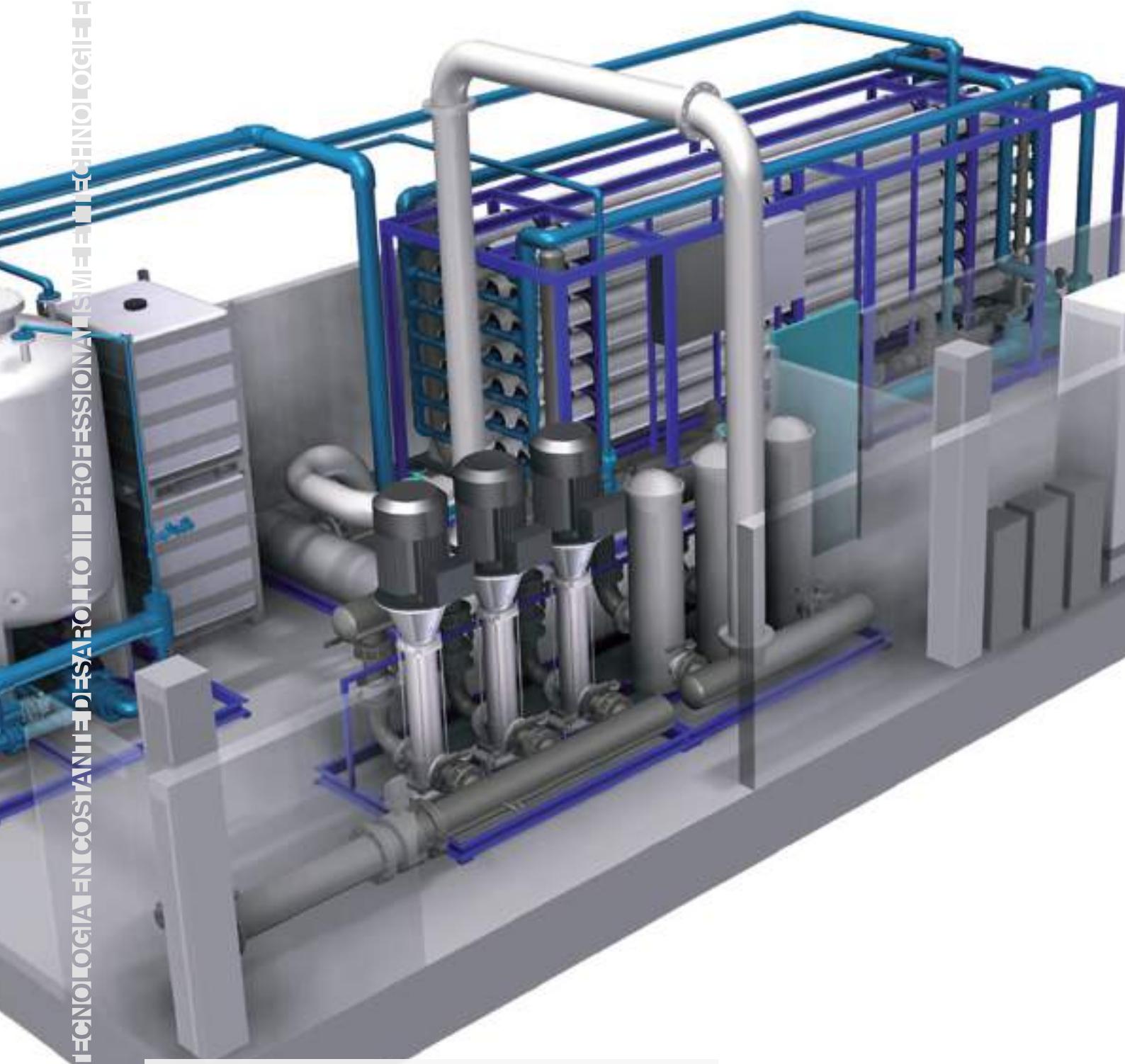


Italy, 2013  
Sea water desalination

DESCRIPTION	CAPACITY
MEDIA FILTRATION	67 m <sup>3</sup> /h
CARTRIDGE MICRO-FILTRATION	67 m <sup>3</sup> /h
REVERSE OSMOSIS	30 m <sup>3</sup> /h



# REVERSE OSMOSIS

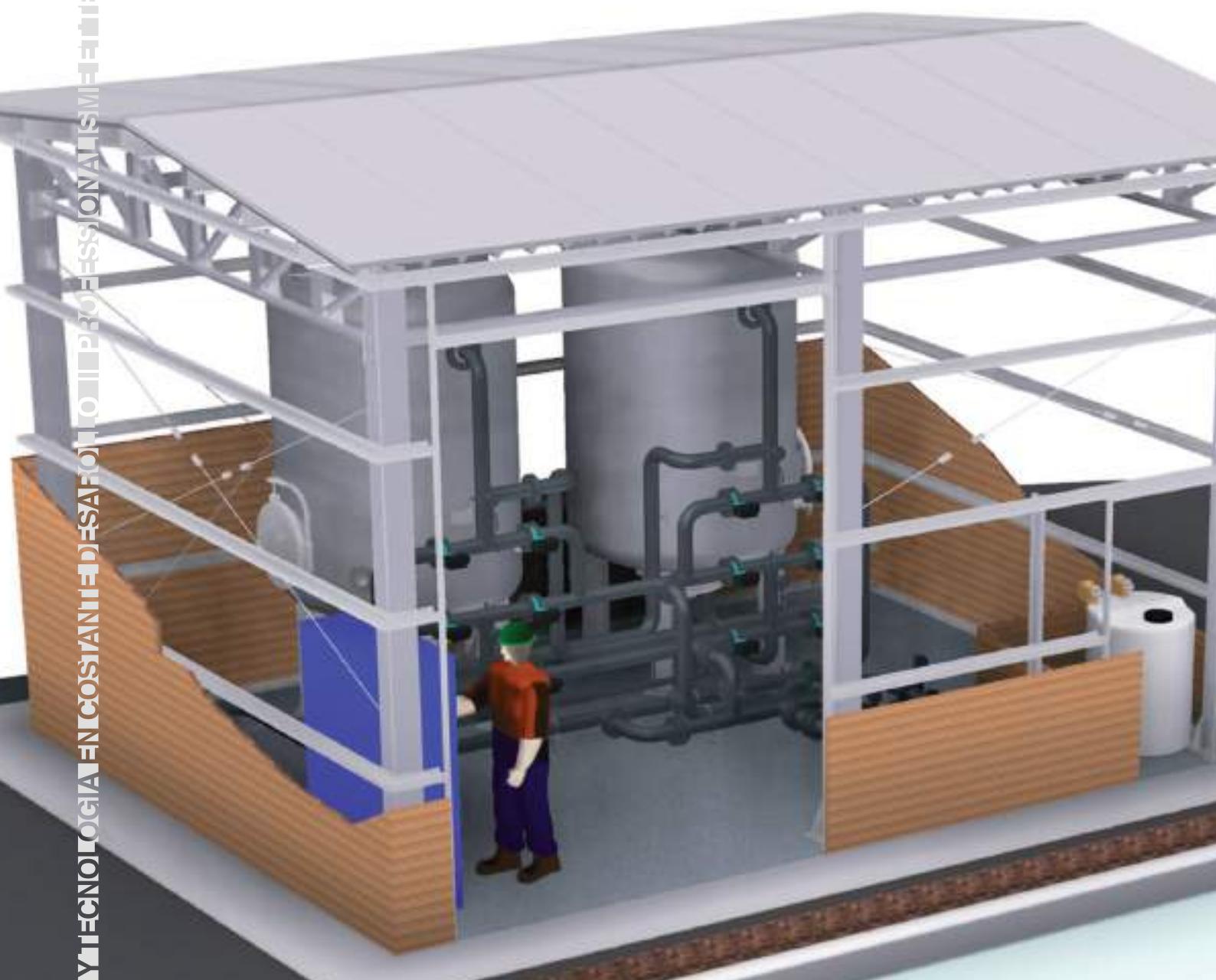


Italy, 2013  
Well water purification

DESCRIPTION	CAPACITY
CARTRIDGE MICRO-FILTRATION	300 m <sup>3</sup> /h
REVERSE OSMOSIS	180 m <sup>3</sup> /h



# MEDIA FILTRATION

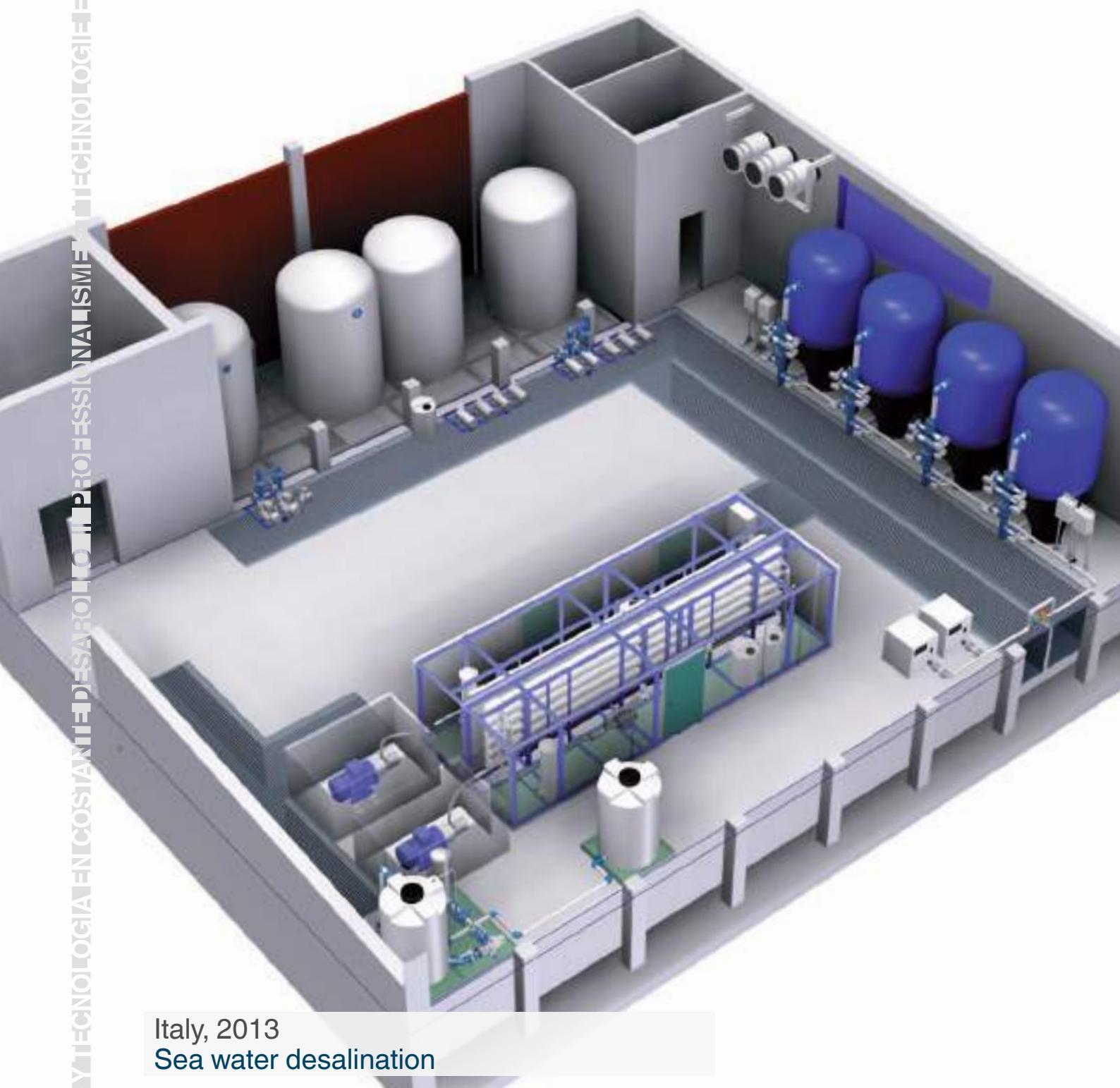


Italy, 2013  
Well water purification

DESCRIPTION	CAPACITY
ARSENIC REMOVAL	33 m <sup>3</sup> /h

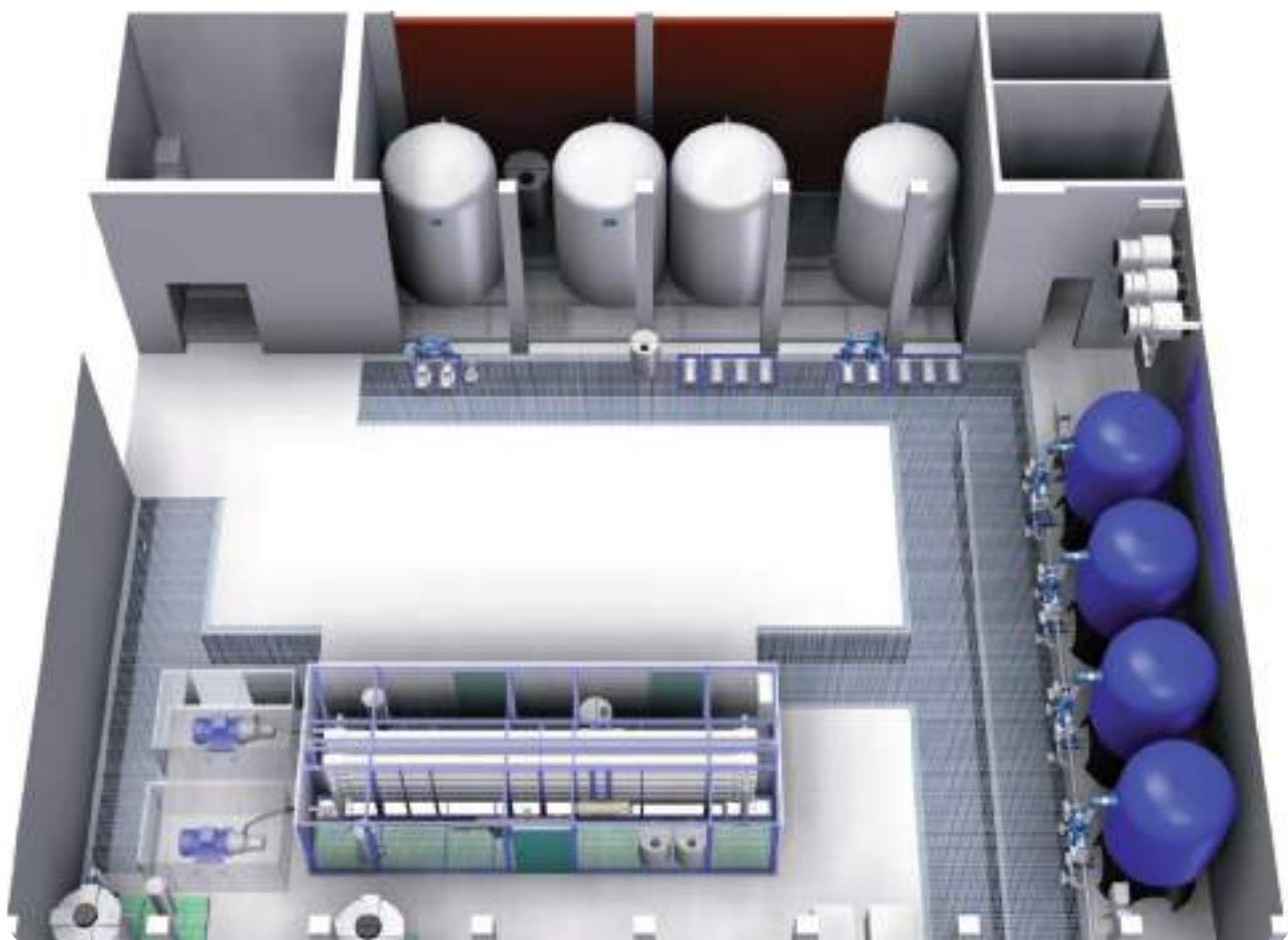


# MEDIA FILTRATION & REVERSE OSMOSIS

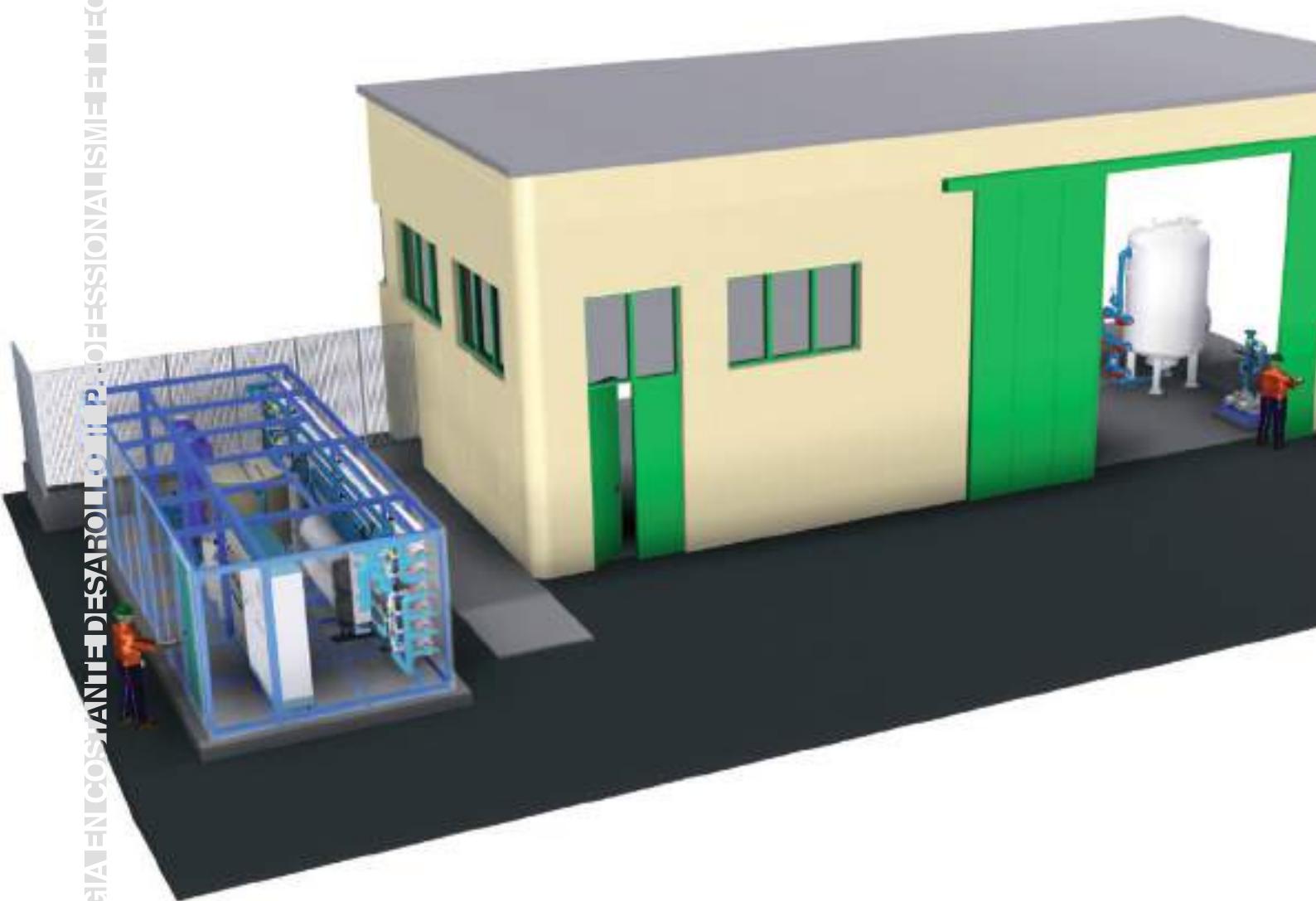


Italy, 2013  
Sea water desalination

DESCRIPTION	CAPACITY
MEDIA FILTRATION	150 m <sup>3</sup> /h
CARTRIDGE MICRO-FILTRATION	150 m <sup>3</sup> /h
REVERSE OSMOSIS	60 m <sup>3</sup> /h



# MEDIA FILTRATION, REVERSE OSMOSIS & ELECTRODEIONIZATION

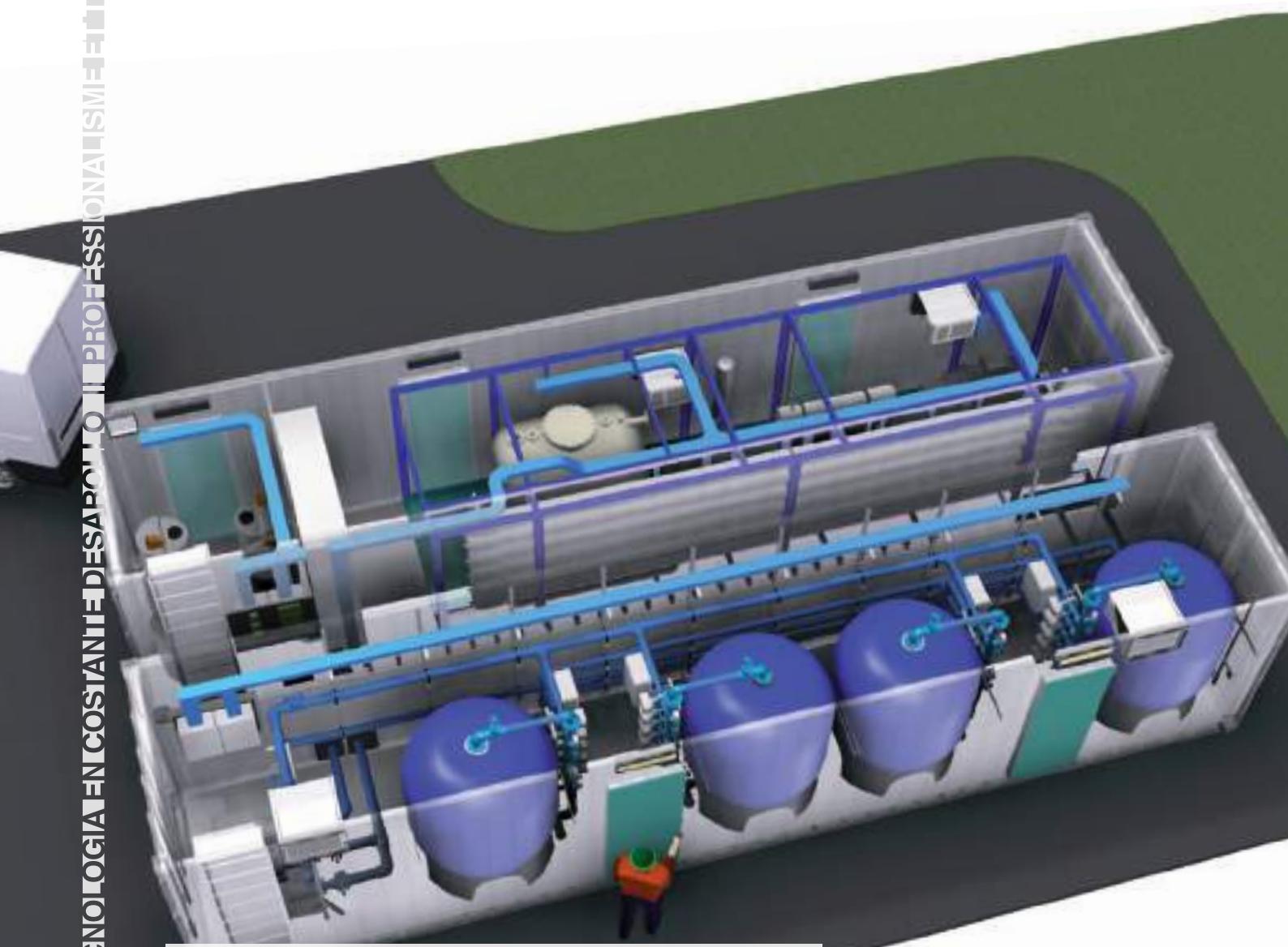


Italy, 2013  
Well water demineralization

DESCRIPTION	CAPACITY
MEDIA FILTRATION	40 m <sup>3</sup> /h
CARTRIDGE MICRO-FILTRATION	40 m <sup>3</sup> /h
1 <sup>st</sup> PASS REVERSE OSMOSIS	30 m <sup>3</sup> /h
2 <sup>nd</sup> PASS REVERSE OSMOSIS	27 m <sup>3</sup> /h
ELECTRODEIONIZATION	25 m <sup>3</sup> /h



# MEDIA FILTRATION & REVERSE OSMOSIS

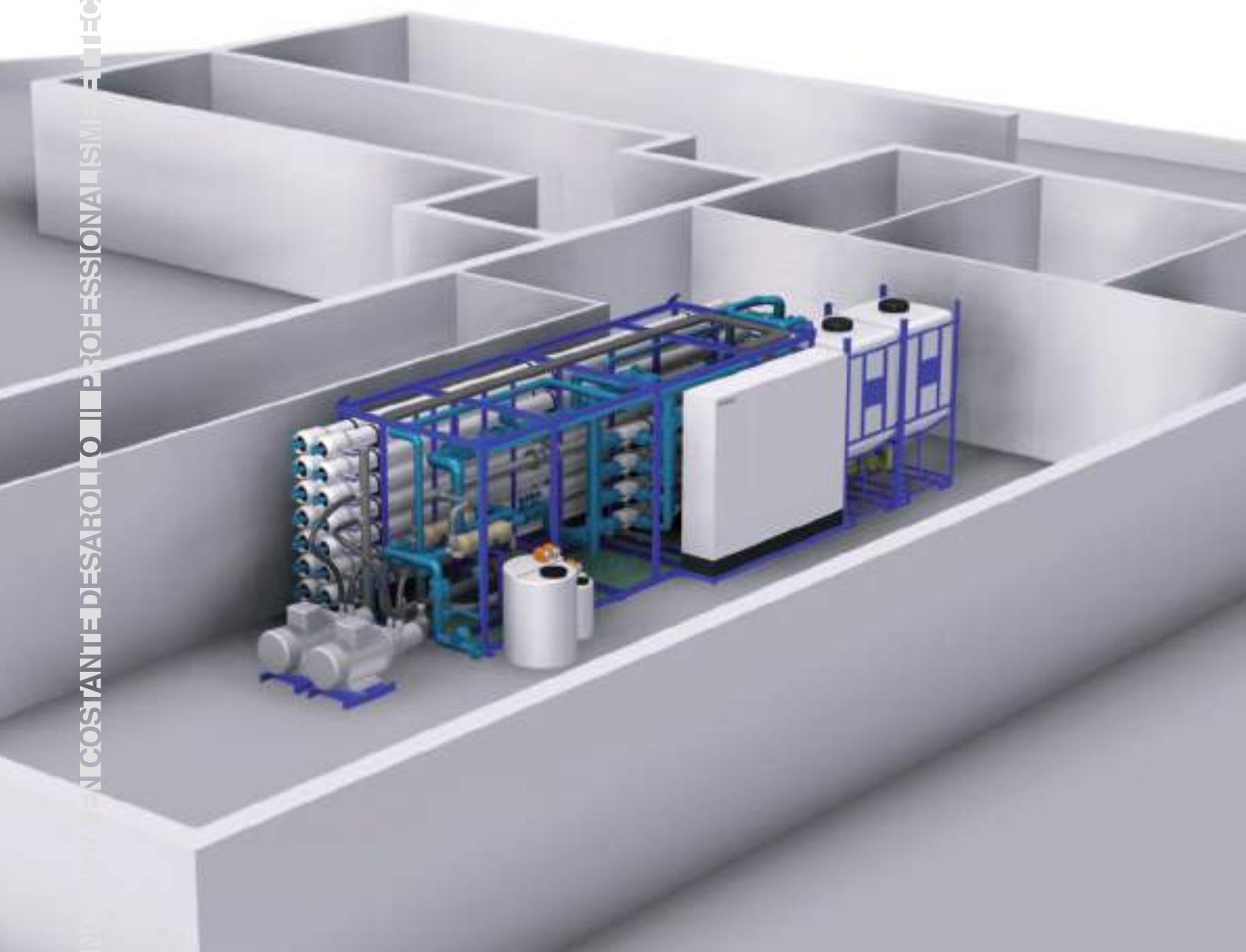


Middle East, 2013  
Sea water desalination

DESCRIPTION	CAPACITY
MEDIA FILTRATION	60 m <sup>3</sup> /h
CARTRIDGE MICRO-FILTRATION	60 m <sup>3</sup> /h
REVERSE OSMOSIS	25 m <sup>3</sup> /h

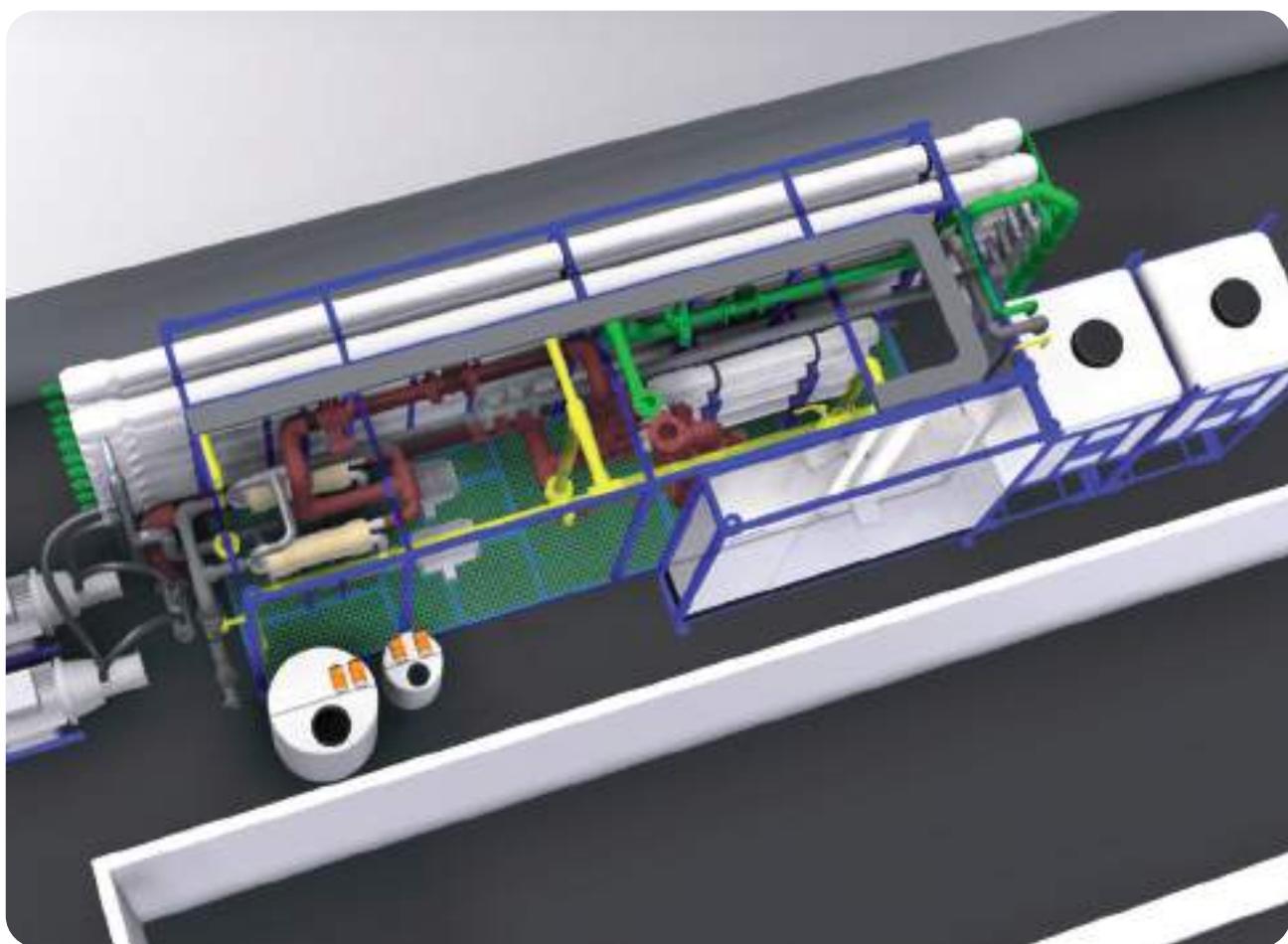


# REVERSE OSMOSIS

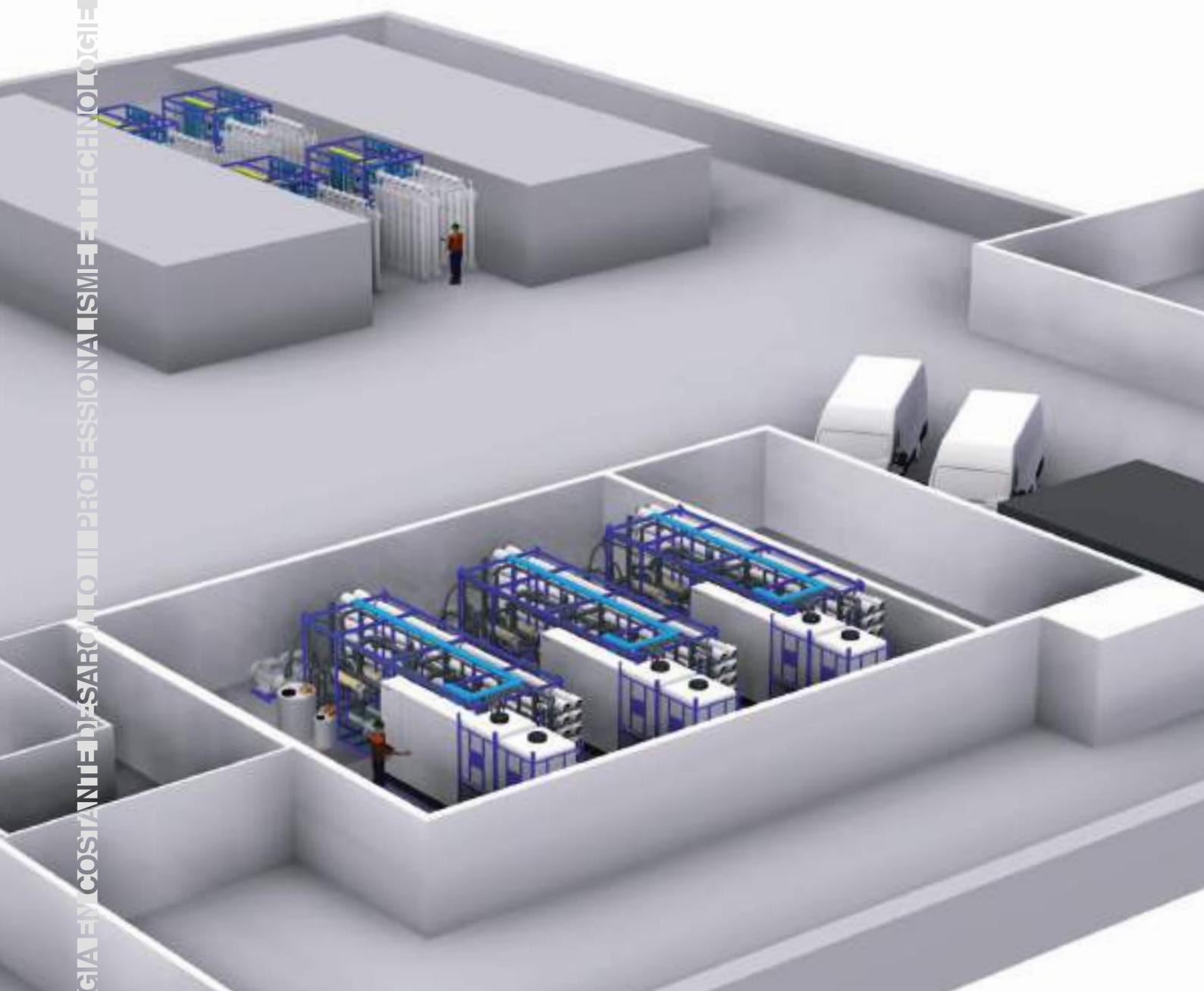


Italy, 2014  
Sea water desalination

DESCRIPTION	CAPACITY
CARTRIDGE MICRO-FILTRATION	120 m <sup>3</sup> /h
REVERSE OSMOSIS	50 m <sup>3</sup> /h
REMINERALIZATION	50 m <sup>3</sup> /h

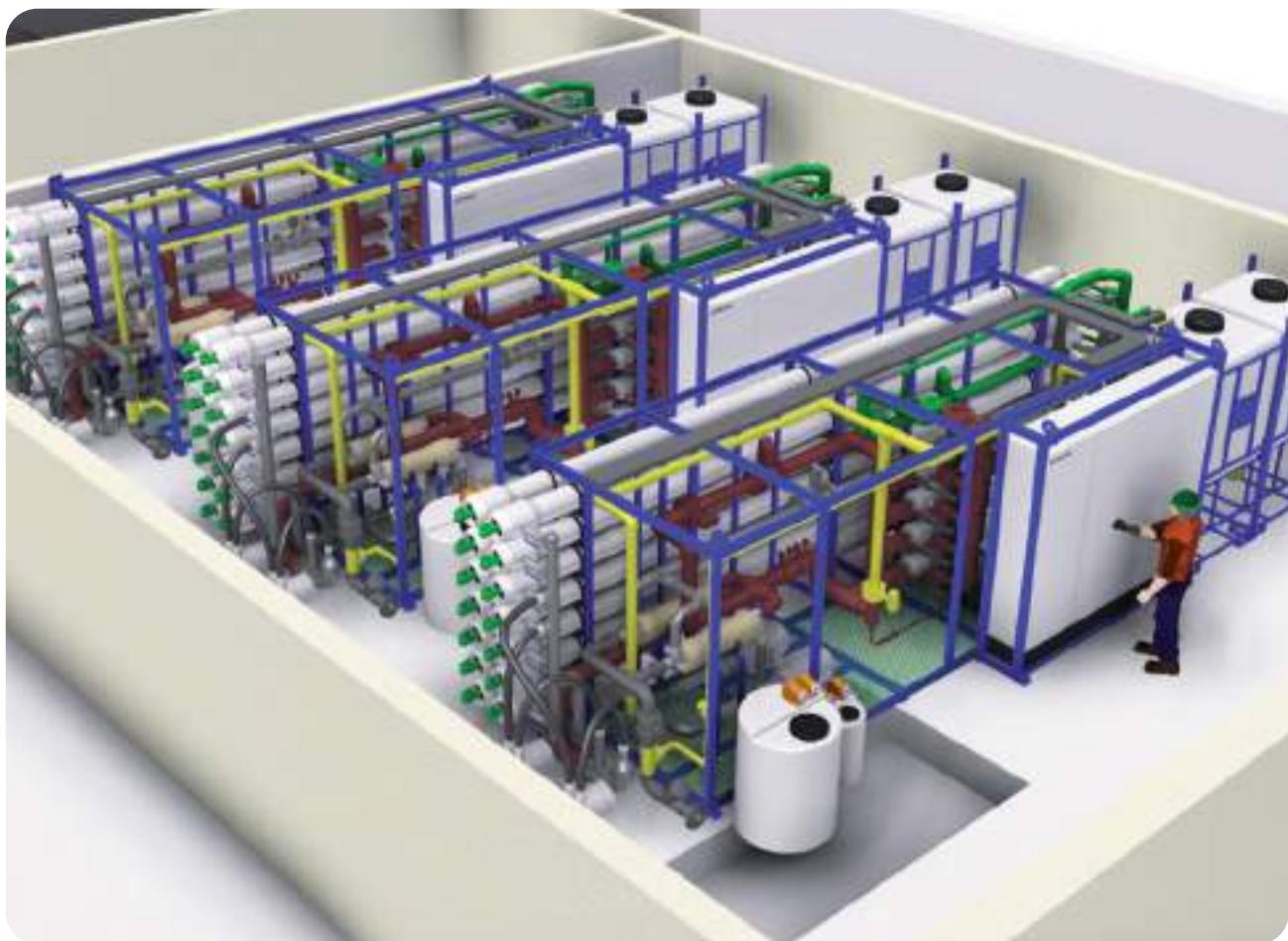


# ULTRAFILTRATION & REVERSE OSMOSIS

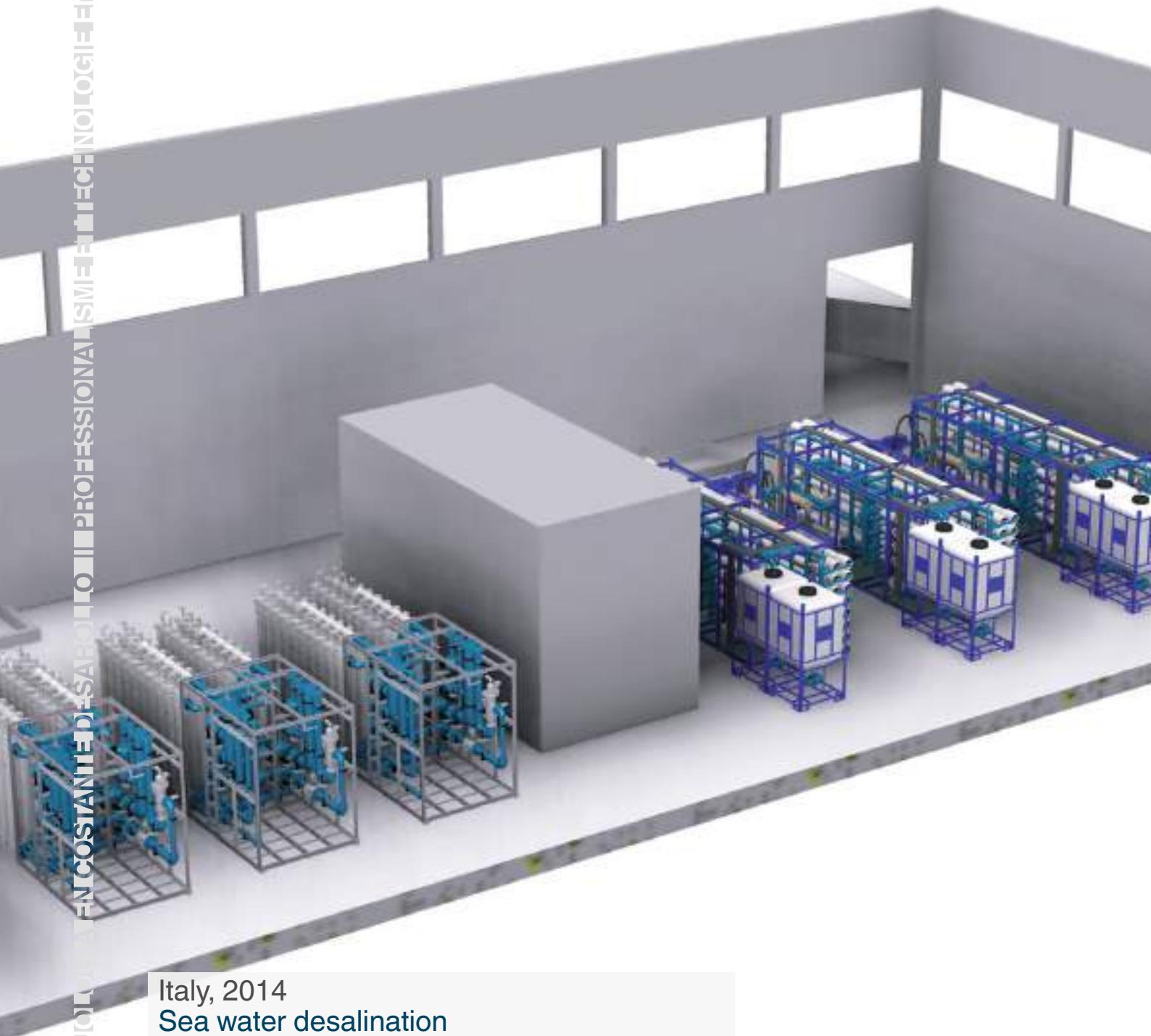


Italy, 2014  
Sea water desalination

DESCRIPTION	CAPACITY
MECHANICAL FILTRATION	480 m <sup>3</sup> /h
ULTRAFILTRATION (60÷120 lmh)	340÷680 m <sup>3</sup> /h
CARTRIDGE MICRO-FILTRATION	480 m <sup>3</sup> /h
REVERSE OSMOSIS	150 m <sup>3</sup> /h
REMINERALIZATION	150 m <sup>3</sup> /h



# ULTRAFILTRATION & REVERSE OSMOSIS

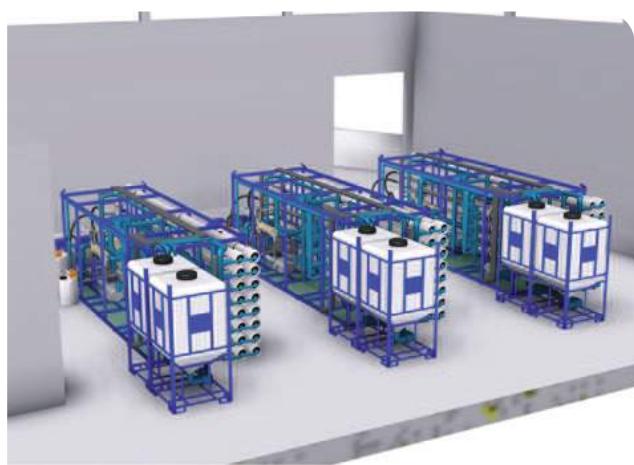
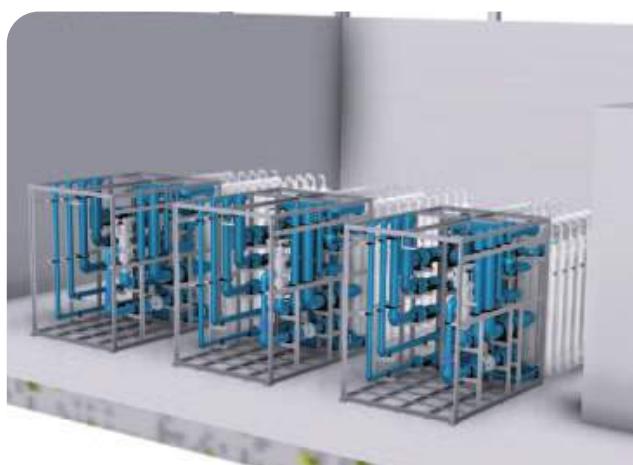


Italy, 2014  
Sea water desalination

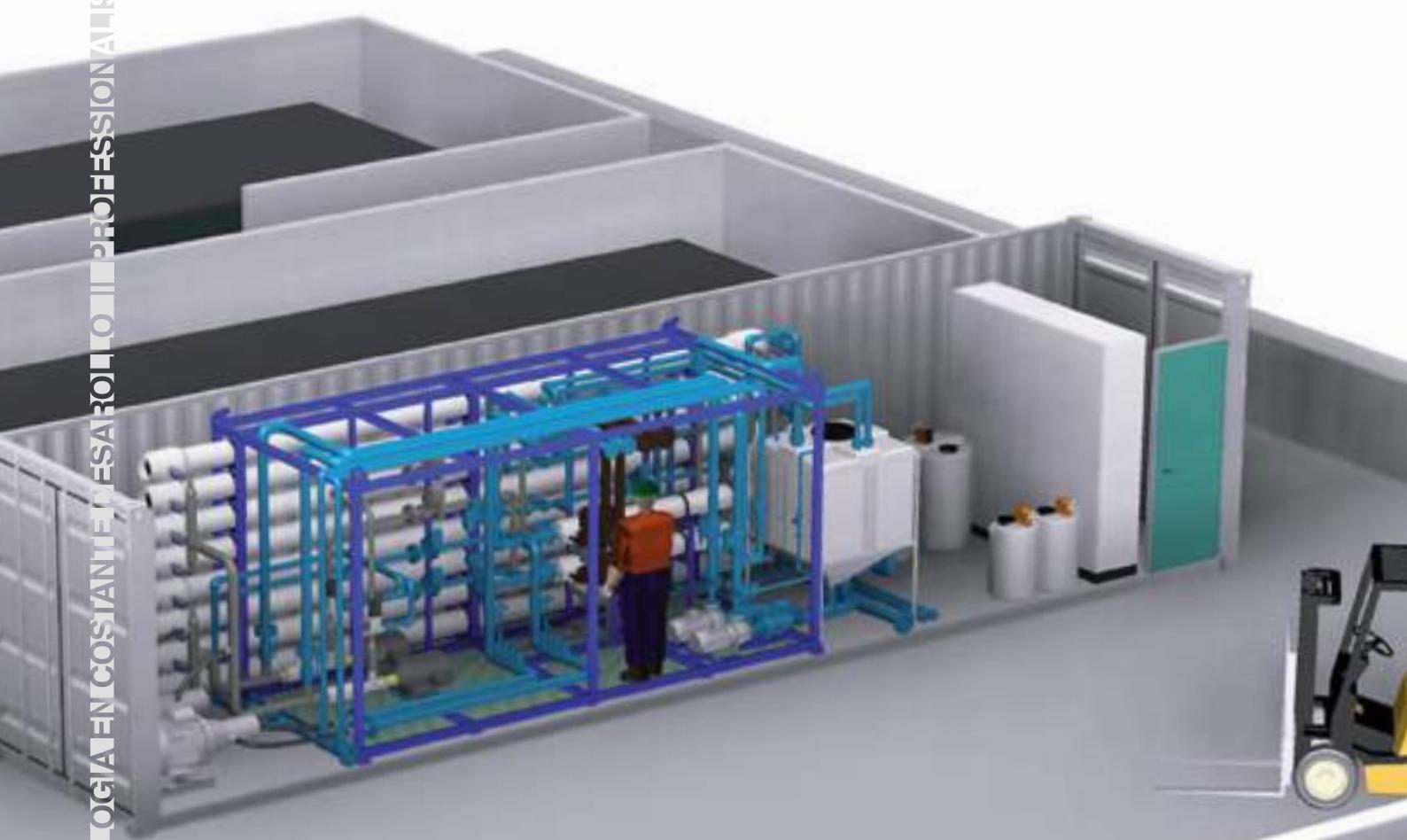
DESCRIPTION	CAPACITY
MECHANICAL FILTRATION	600 m <sup>3</sup> /h
ULTRAFILTRATION (60÷120 lmh)	440÷880 m <sup>3</sup> /h
CARTRIDGE MICRO-FILTRATION	500 m <sup>3</sup> /h
REVERSE OSMOSIS	188 m <sup>3</sup> /h
REMINERALIZATION	188 m <sup>3</sup> /h



protectino  
VIAO INNOVA

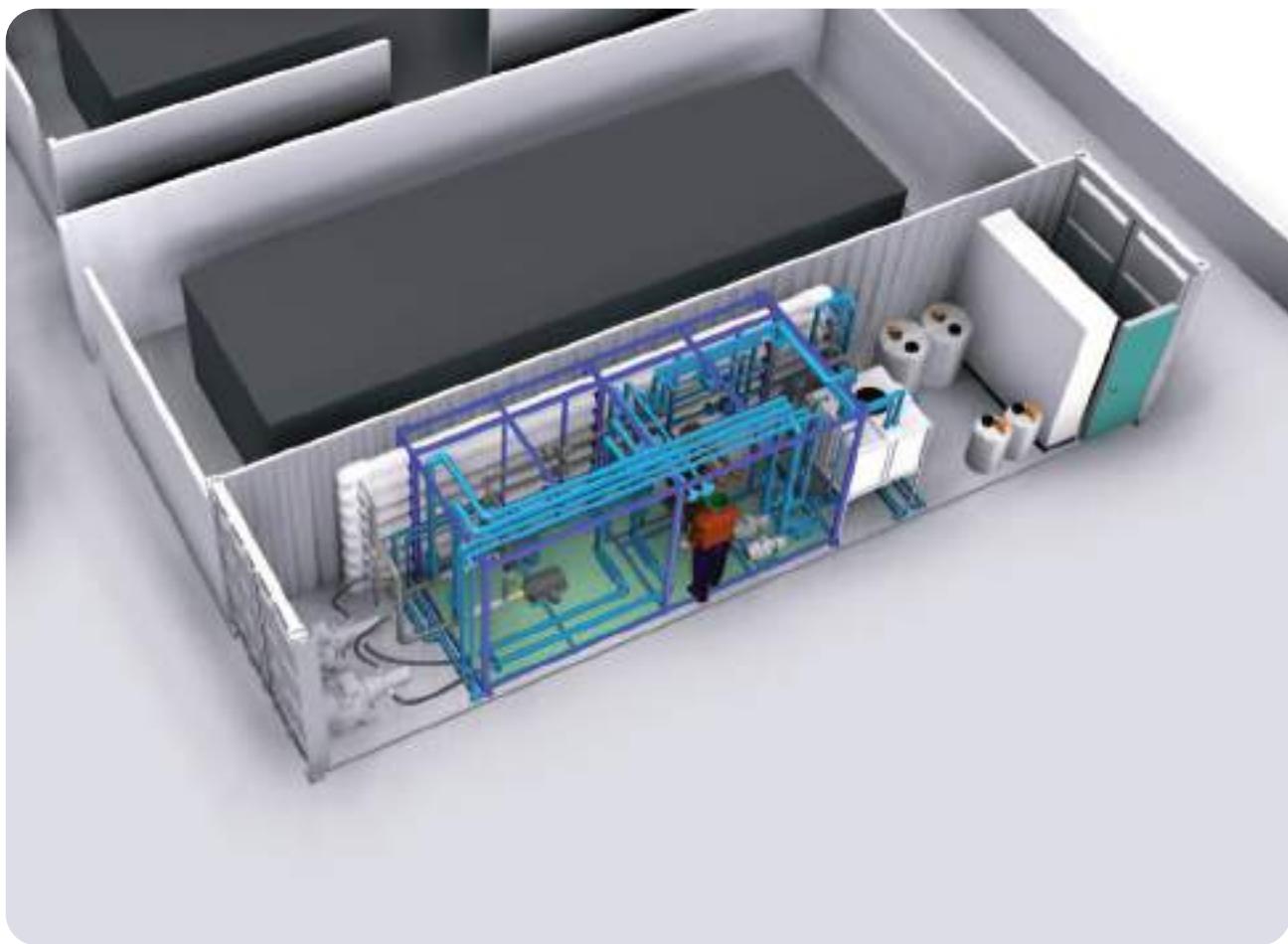


# MEDIA FILTRATION & REVERSE OSMOSIS

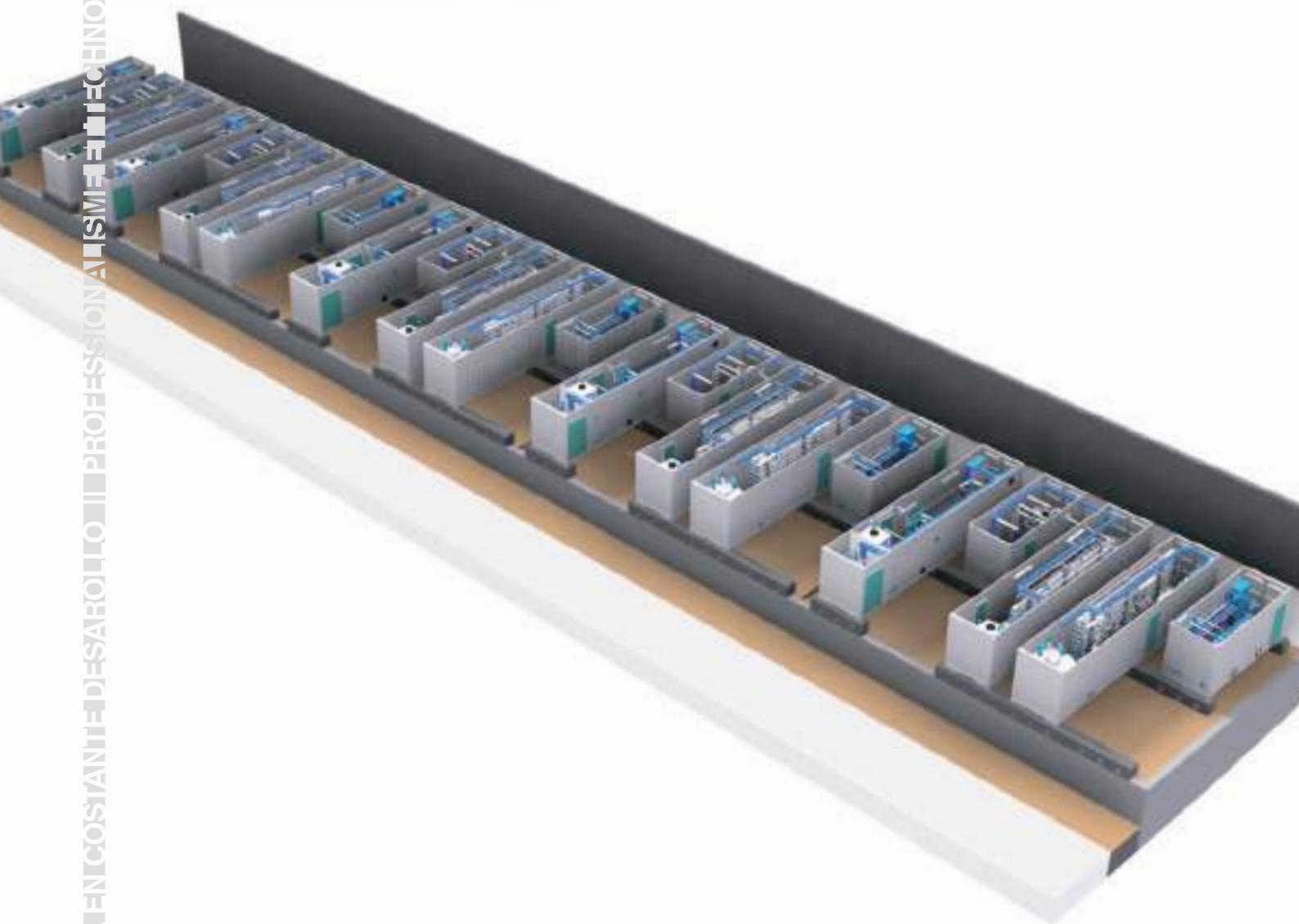


Italy, 2014  
Sea water desalination

DESCRIPTION	CAPACITY
MEDIA FILTRATION	60 m <sup>3</sup> /h
CARTRIDGE MICRO-FILTRATION	60 m <sup>3</sup> /h
REVERSE OSMOSIS	25 m <sup>3</sup> /h
REMINERALIZATION	25 m <sup>3</sup> /h



# ULTRAFILTRATION, REVERSE OSMOSIS & ELECTRODEIONIZATION

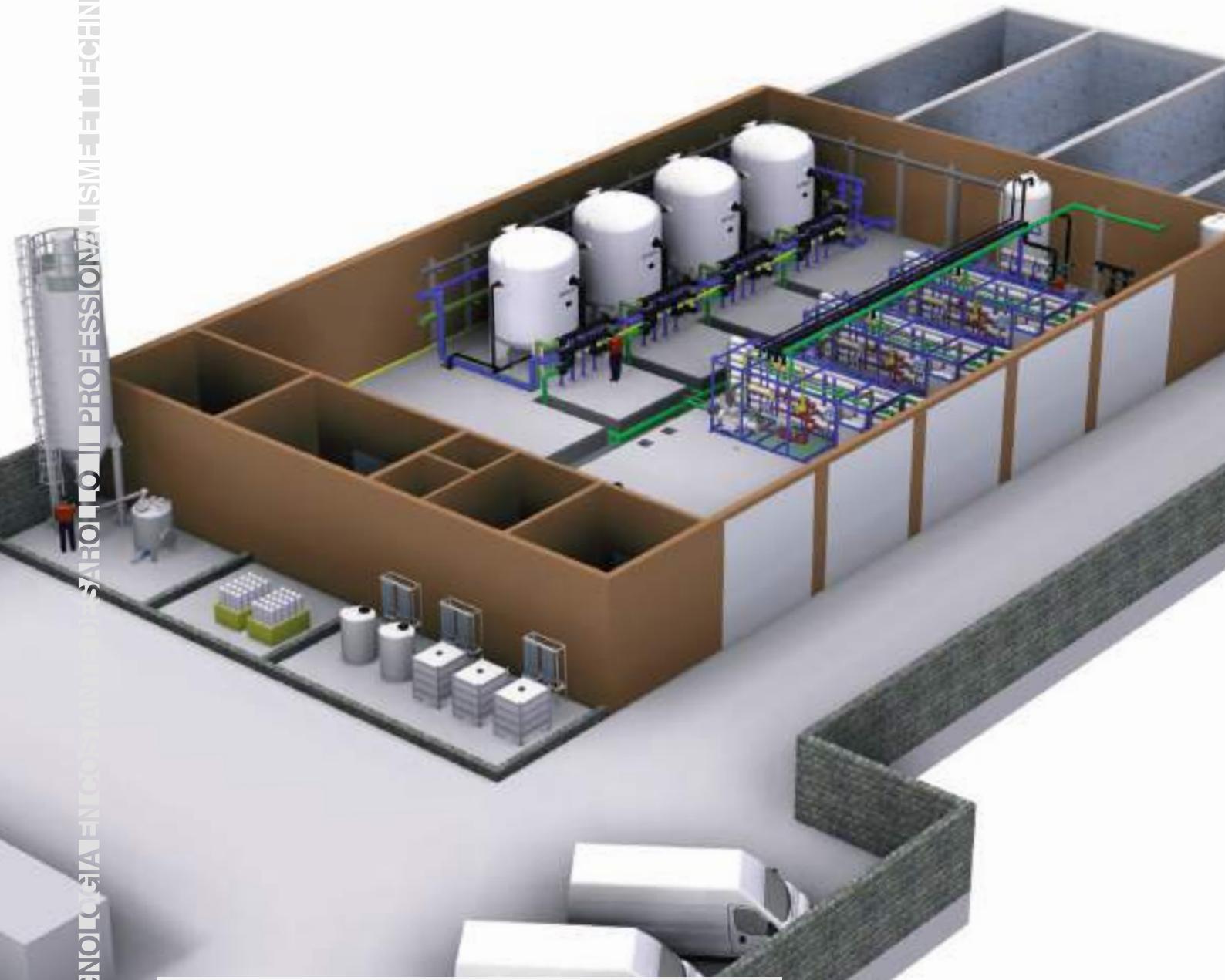


Italy, 2014  
Sea water desalination

DESCRIPTION	CAPACITY
MECHANICAL FILTRATION	600 m <sup>3</sup> /h
ULTRAFILTRATION (60÷120 lmh)	450÷900 m <sup>3</sup> /h
CARTRIDGE MICRO-FILTRATION	350 m <sup>3</sup> /h
1 <sup>st</sup> PASS REVERSE OSMOSIS	250 m <sup>3</sup> /h
2 <sup>nd</sup> PASS REVERSE OSMOSIS	210 m <sup>3</sup> /h
ELECTRODEIONIZATION	200 m <sup>3</sup> /h



# MEDIA FILTRATION & REVERSE OSMOSIS

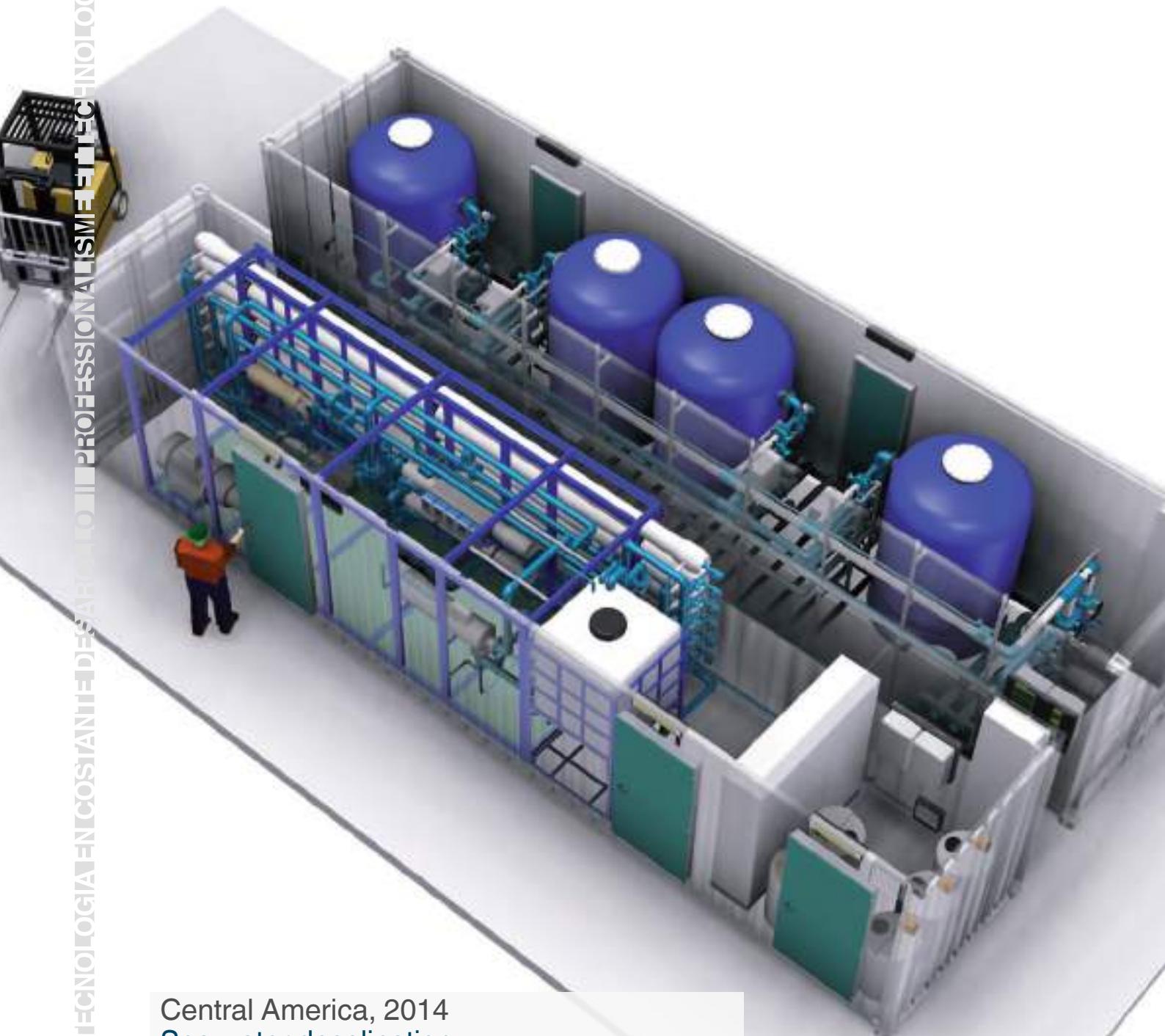


Italy, 2014  
Sea water desalination

DESCRIPTION	CAPACITY
MEDIA FILTRATION	210 m <sup>3</sup> /h
CARTRIDGE MICRO-FILTRATION	210 m <sup>3</sup> /h
REVERSE OSMOSIS	90 m <sup>3</sup> /h



# MEDIA FILTRATION & REVERSE OSMOSIS

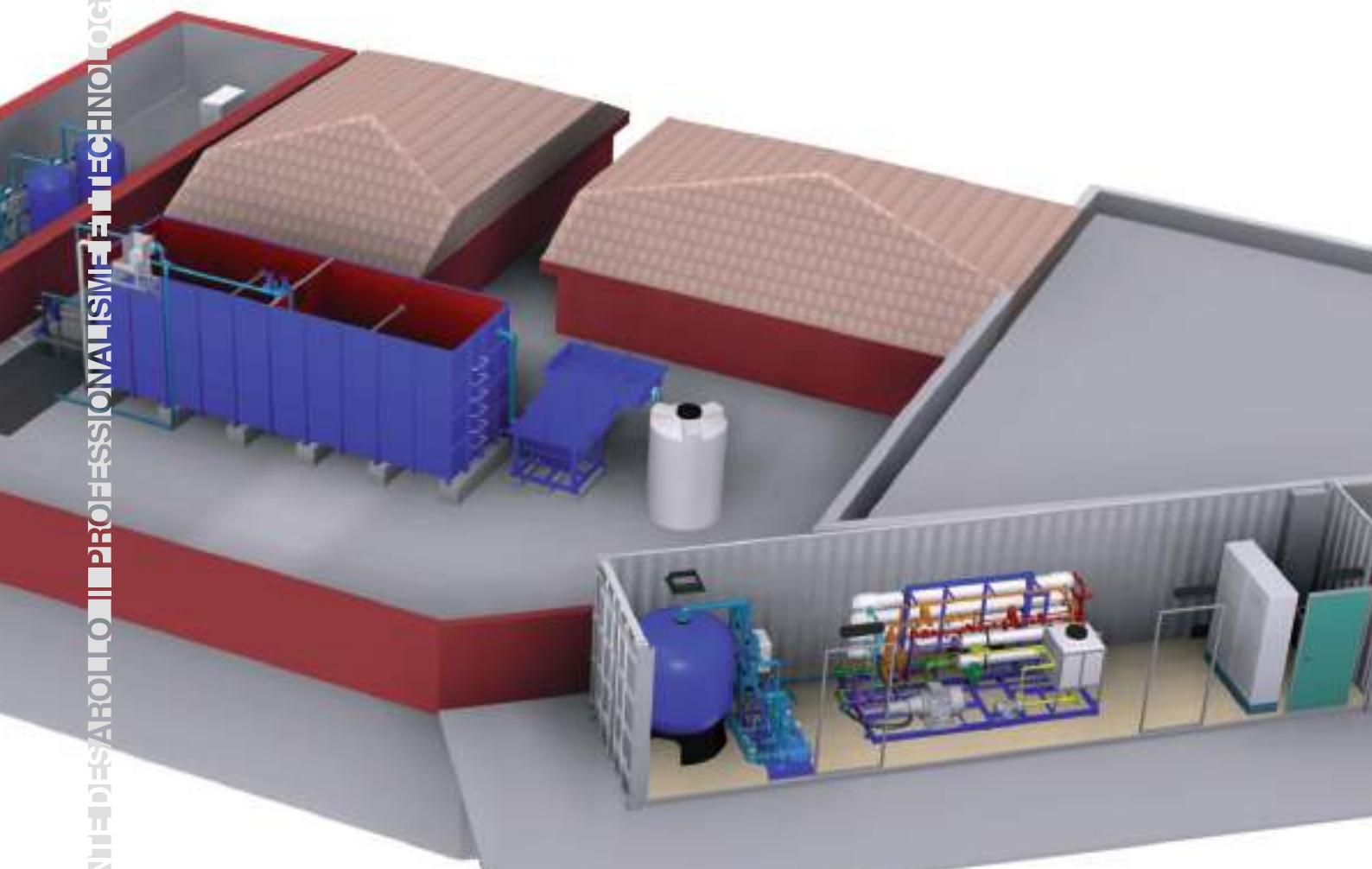


Central America, 2014  
Sea water desalination

DESCRIPTION	CAPACITY
MEDIA FILTRATION	60 m <sup>3</sup> /h
CARTRIDGE MICRO-FILTRATION	60 m <sup>3</sup> /h
REVERSE OSMOSIS	25 m <sup>3</sup> /h



# BIOLOGICAL, MEDIA FILTRATION & REVERSE OSMOSIS



Central America, 2014

## Waste water treatment

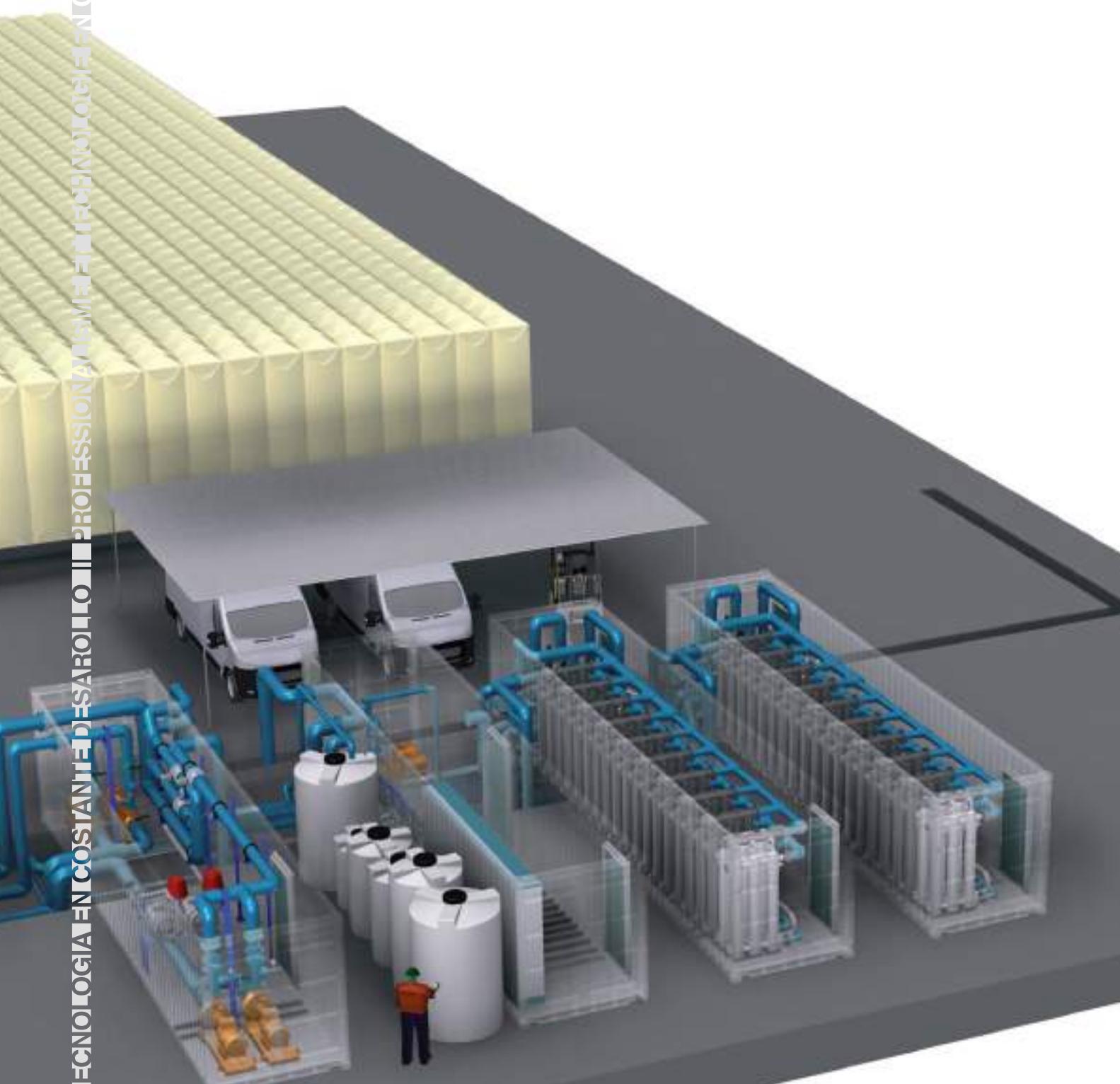
DESCRIPTION	CAPACITY
MOVING BED BIOFILM REACTION	6.25 m <sup>3</sup> /h
SETTLEMENT	6.25 m <sup>3</sup> /h
MEDIA FILTRATION	6.25 m <sup>3</sup> /h

## Sea water desalination

DESCRIPTION	CAPACITY
MEDIA FILTRATION	16 m <sup>3</sup> /h
CARTRIDGE MICRO-FILTRATION	16 m <sup>3</sup> /h
REVERSE OSMOSIS	6.25 m <sup>3</sup> /h



# ULTRAFILTRATION

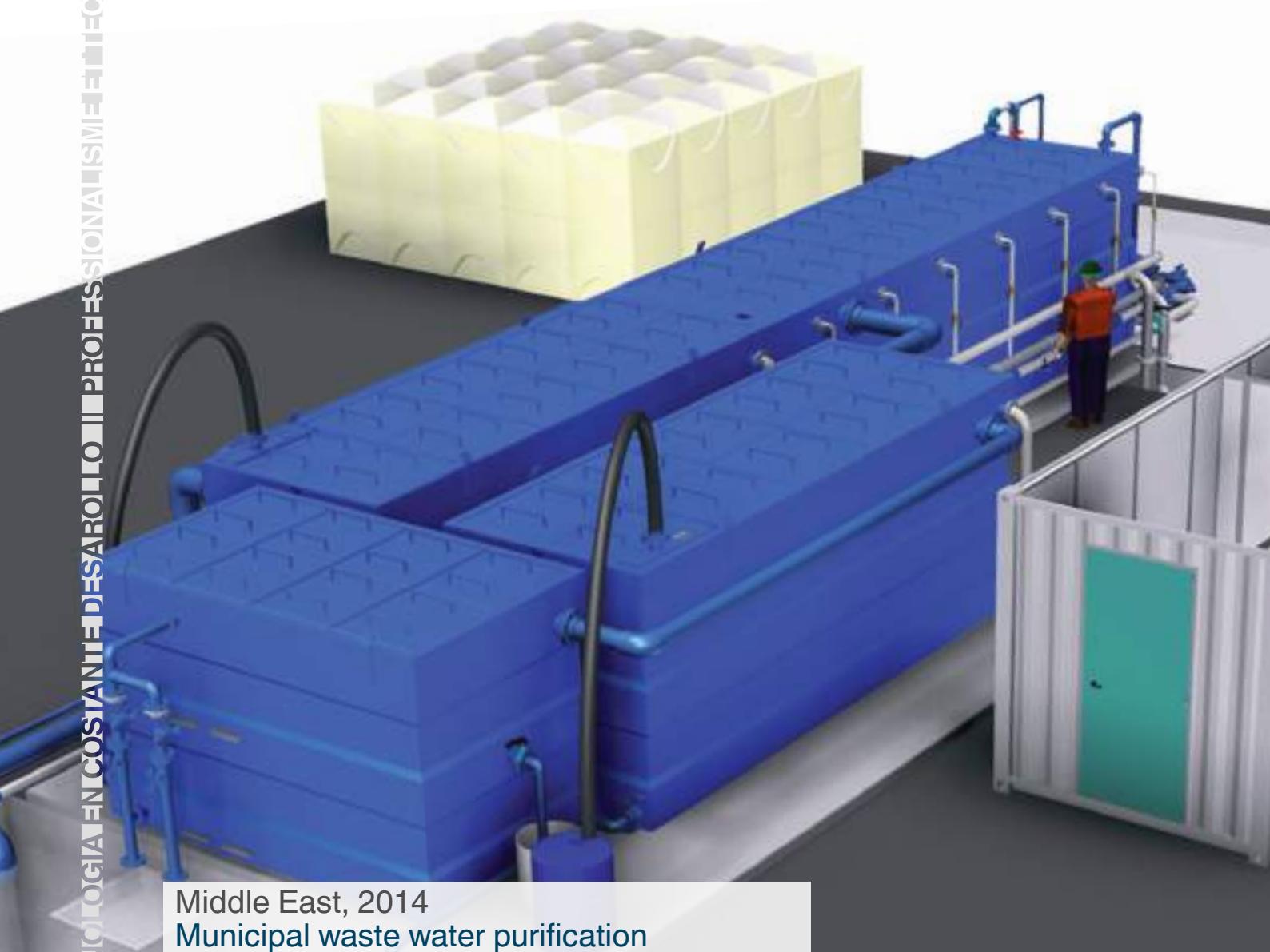


Middle East, 2014  
River water purification

DESCRIPTION	CAPACITY
MECHANICAL FILTRATION	400 m <sup>3</sup> /h
ULTRAFILTRATION (60÷120 lmh)	367÷734 m <sup>3</sup> /h



# BIOLOGICAL

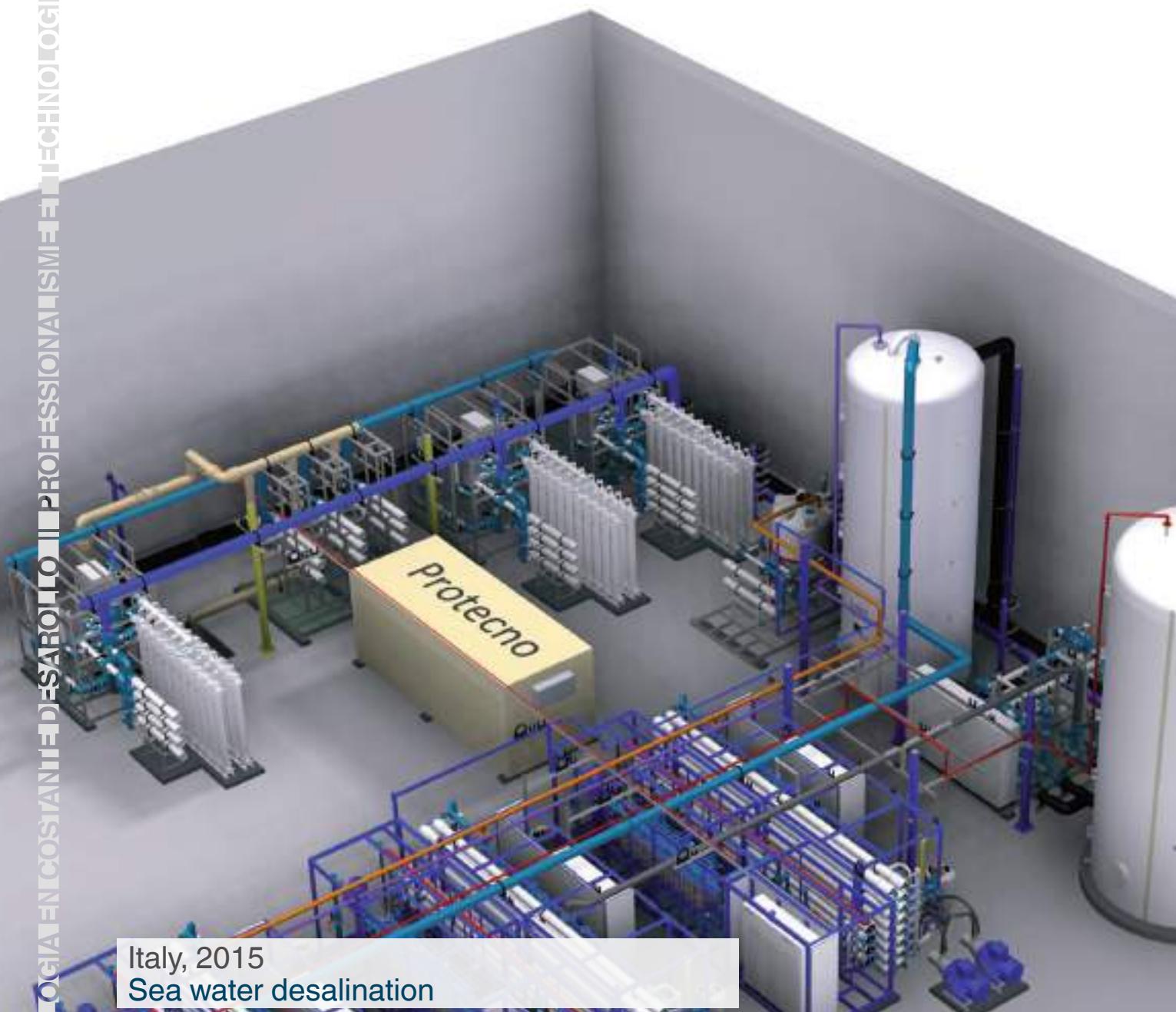


Middle East, 2014  
Municipal waste water purification

DESCRIPTION	CAPACITY
SCREENING	
GRIT AND GREASES REMOVAL	
NITRIFICATION	
MEMBRANE BIOLOGICAL REACTION	10 m <sup>3</sup> /h
DISINFECTION	



# ULTRAFILTRATION, REVERSE OSMOSIS & ELECTRODEIONIZATION

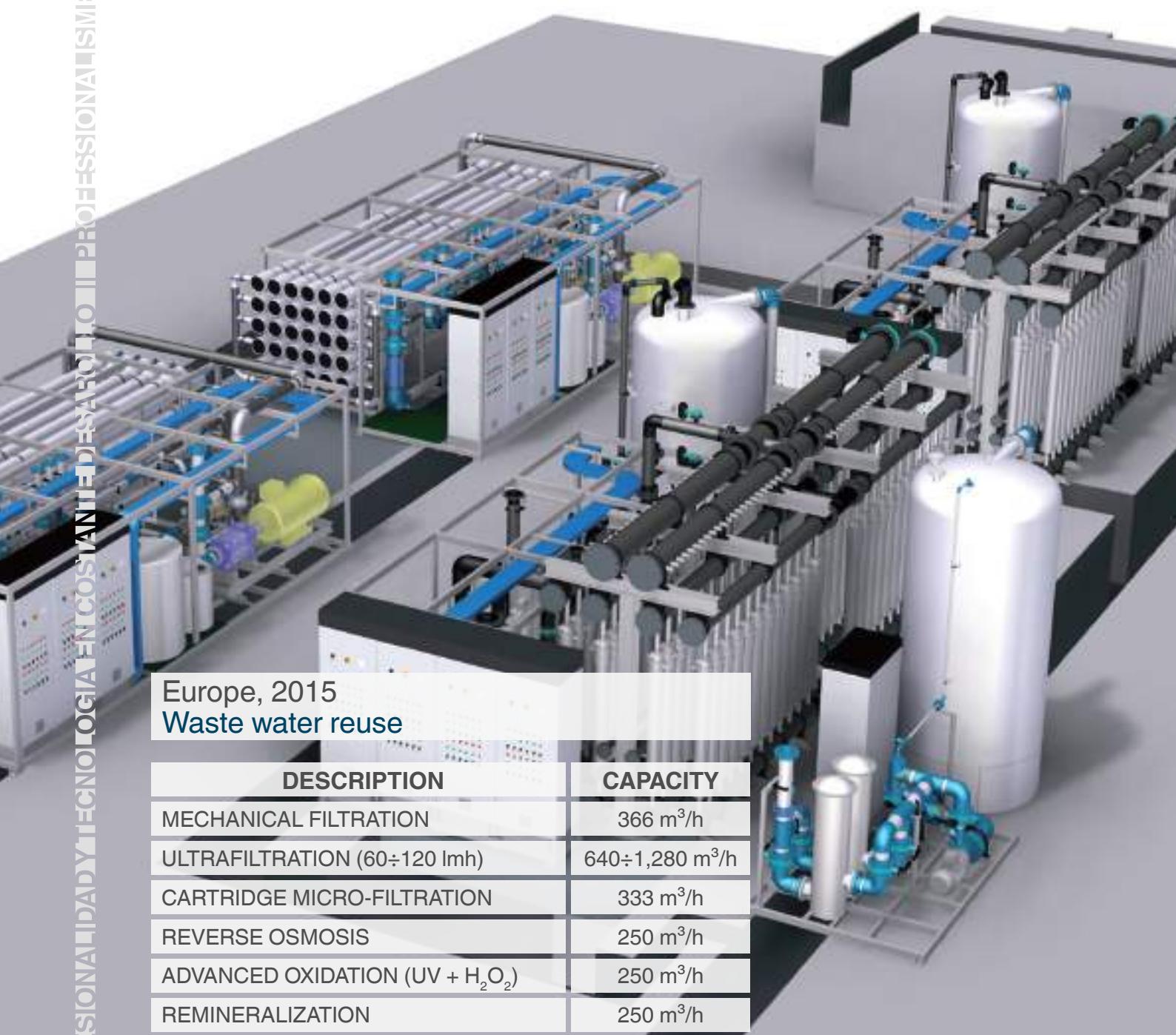


Italy, 2015  
Sea water desalination

DESCRIPTION	CAPACITY
MECHANICAL FILTRATION	600 m <sup>3</sup> /h
ULTRAFILTRATION (60÷120 lmh)	280÷560 m <sup>3</sup> /h
CARTRIDGE MICRO-FILTRATION	427 m <sup>3</sup> /h
1 <sup>st</sup> PASS REVERSE OSMOSIS	200 m <sup>3</sup> /h
2 <sup>nd</sup> PASS REVERSE OSMOSIS	100 m <sup>3</sup> /h
ELECTRODEIONIZATION	90 m <sup>3</sup> /h

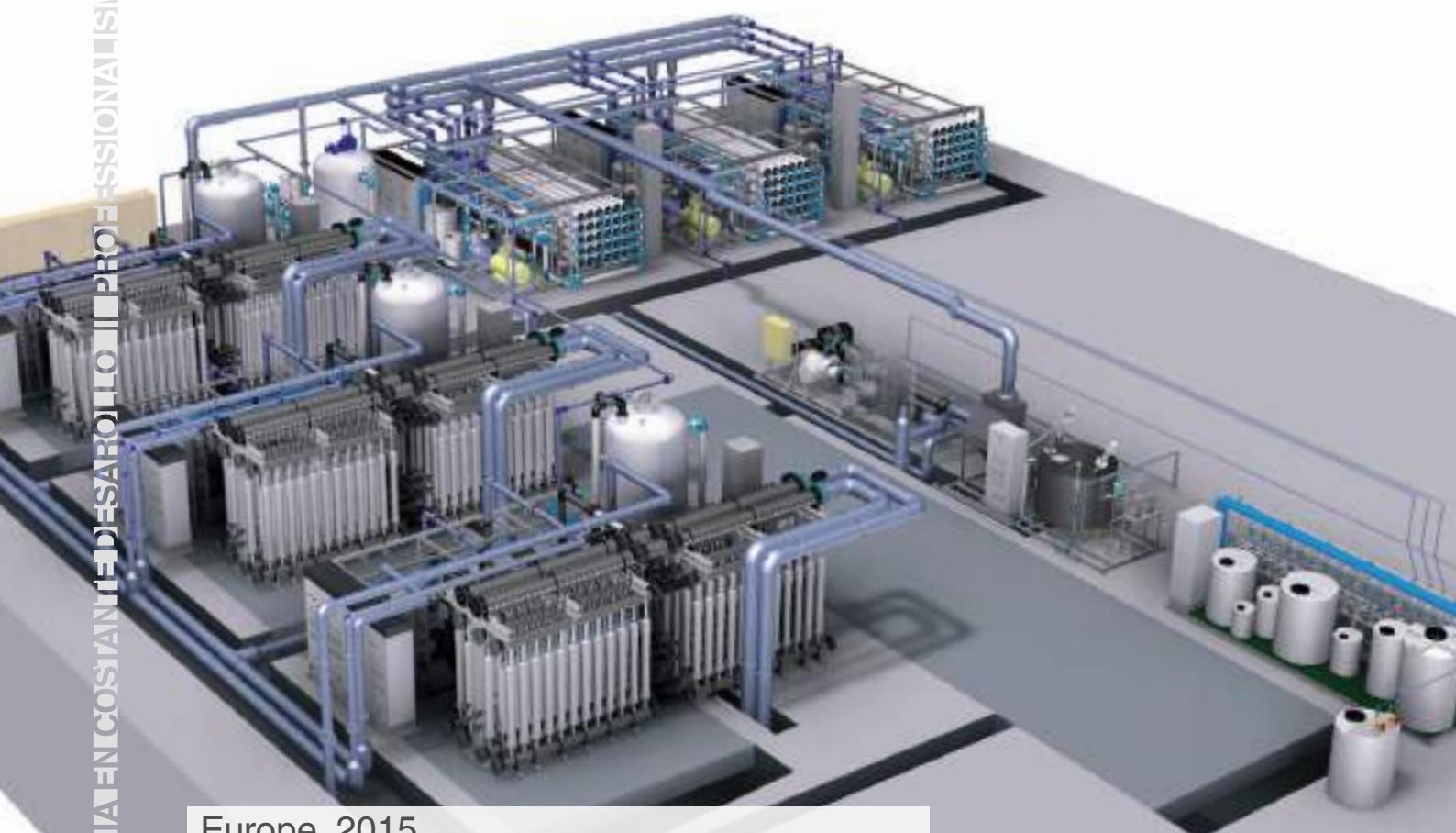


# ULTRAFILTRATION, REVERSE OSMOSIS & ADVANCED OXIDATION





# ULTRAFILTRATION, REVERSE OSMOSIS & ADVANCED OXIDATION

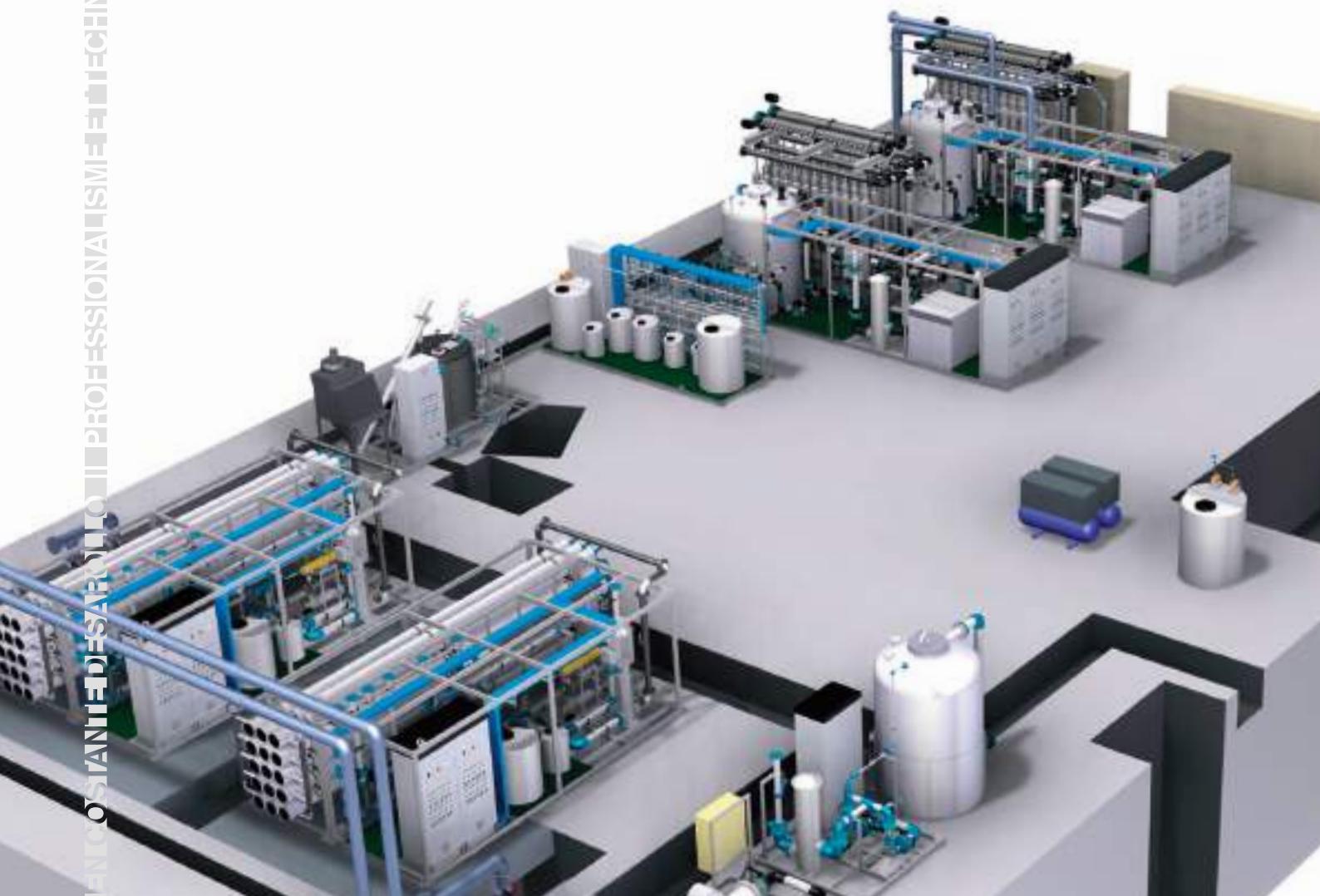


Europe, 2015  
Waste water reuse

DESCRIPTION	CAPACITY
MECHANICAL FILTRATION	615 m <sup>3</sup> /h
ULTRAFILTRATION (60÷120 lmh)	963÷1,926 m <sup>3</sup> /h
CARTRIDGE MICRO-FILTRATION	500 m <sup>3</sup> /h
REVERSE OSMOSIS	375 m <sup>3</sup> /h
ADVANCED OXIDATION (UV + H <sub>2</sub> O <sub>2</sub> )	375 m <sup>3</sup> /h
REMINERALIZATION	375 m <sup>3</sup> /h



# ULTRAFILTRATION, REVERSE OSMOSIS & ADVANCED OXIDATION

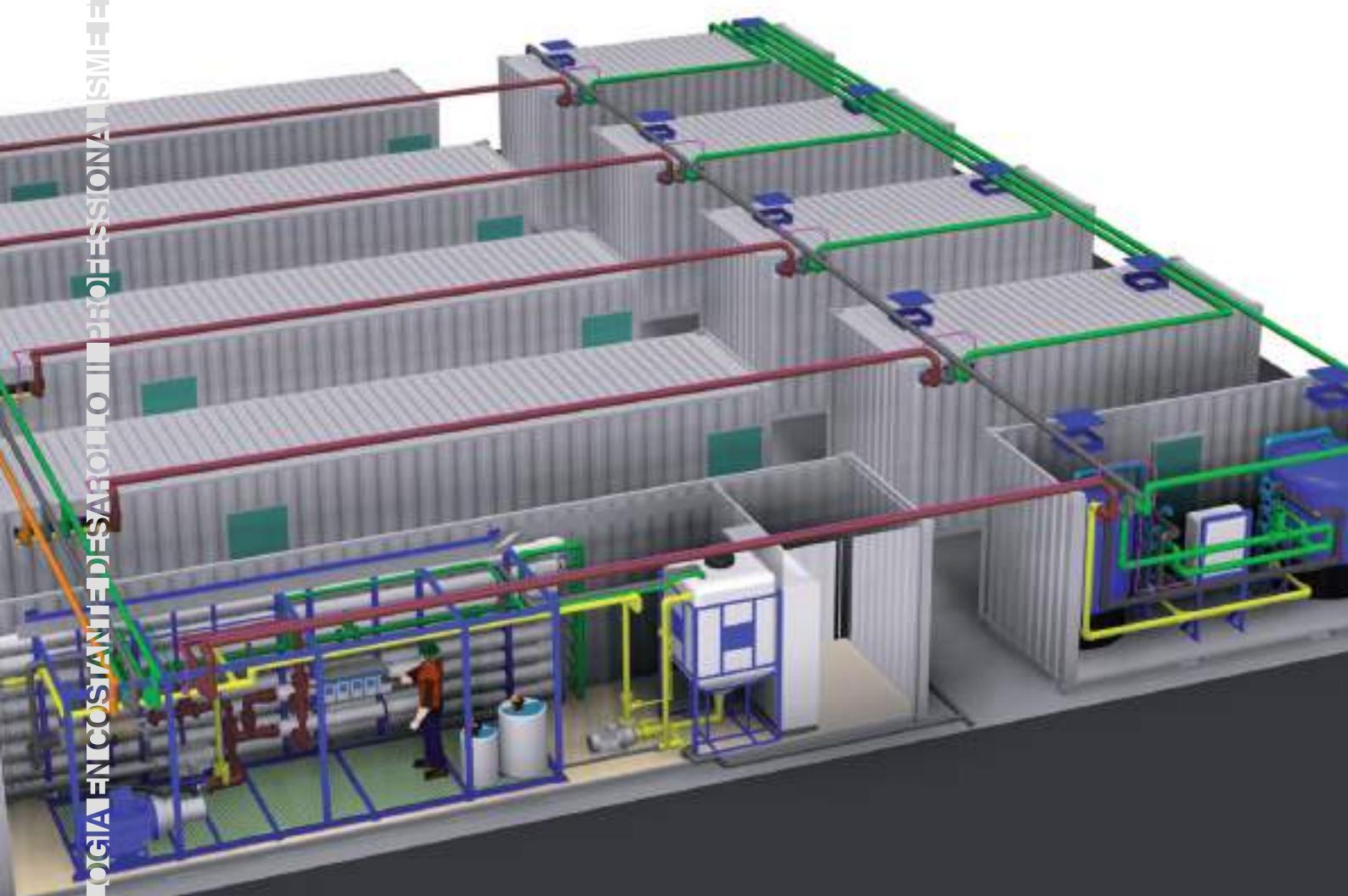


Europe, 2015  
Waste water reuse

DESCRIPTION	CAPACITY
MECHANICAL FILTRATION	183 m <sup>3</sup> /h
ULTRAFILTRATION (60÷120 lmh)	320÷640 m <sup>3</sup> /h
CARTRIDGE MICRO-FILTRATION	167 m <sup>3</sup> /h
REVERSE OSMOSIS	125 m <sup>3</sup> /h
ADVANCED OXIDATION (UV + H <sub>2</sub> O <sub>2</sub> )	125 m <sup>3</sup> /h
REMINERALIZATION	125 m <sup>3</sup> /h



# MEDIA FILTRATION & REVERSE OSMOSIS

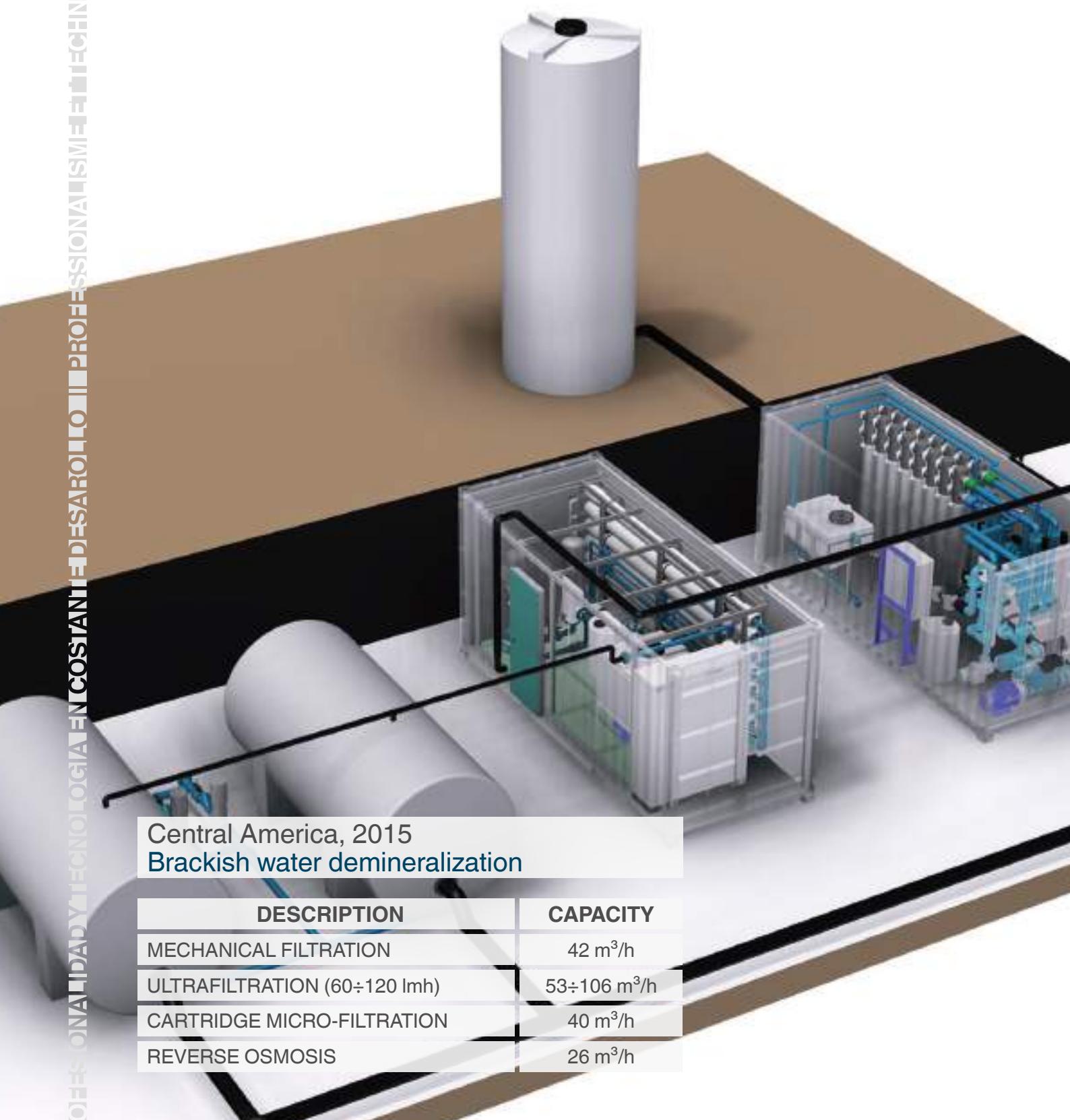


Central America, 2015  
Sea water desalination

DESCRIPTION	CAPACITY
MEDIA FILTRATION	430 m <sup>3</sup> /h
CARTRIDGE MICRO-FILTRATION	430 m <sup>3</sup> /h
REVERSE OSMOSIS	180 m <sup>3</sup> /h



# ULTRAFILTRATION & REVERSE OSMOSIS

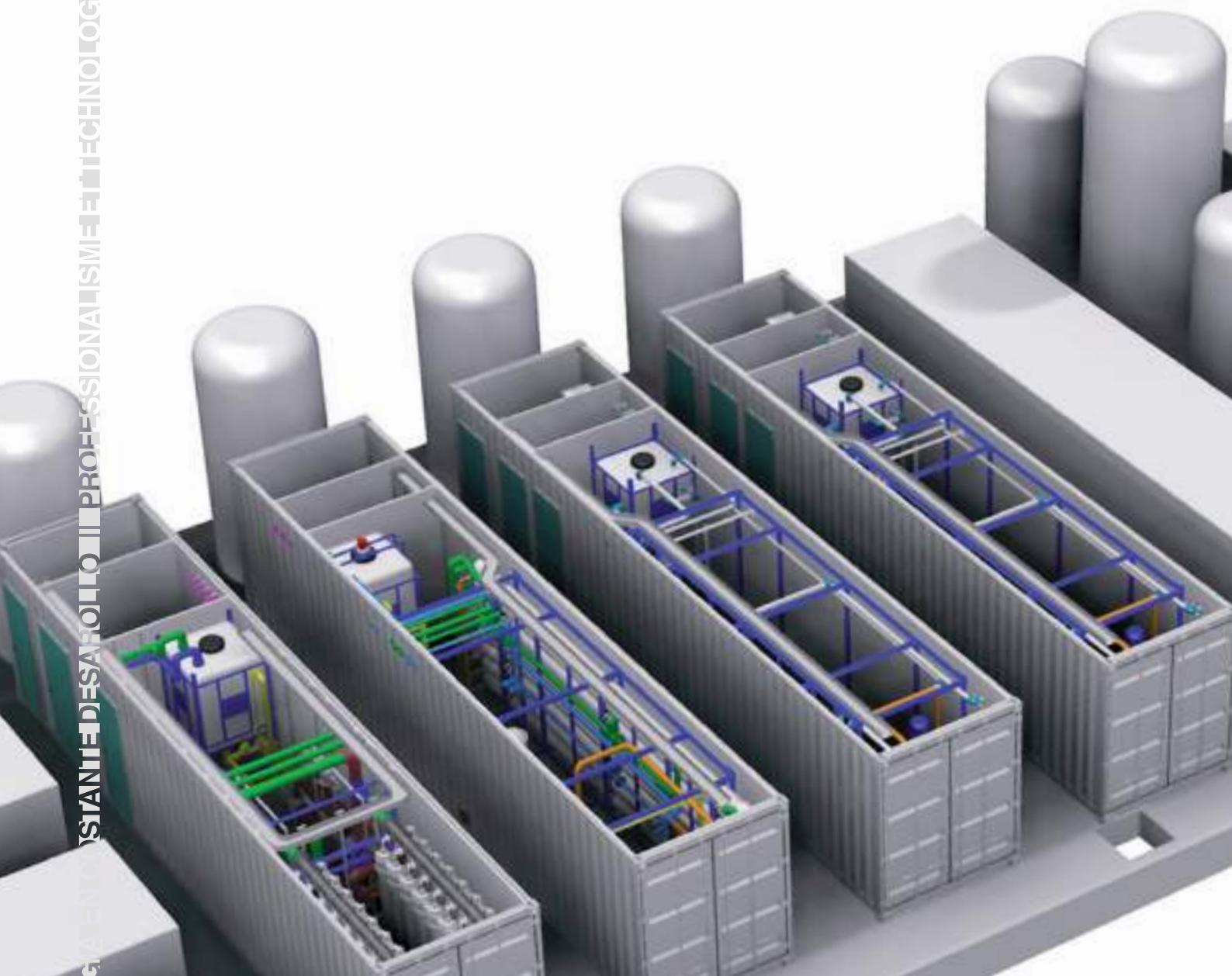


Central America, 2015  
Brackish water demineralization

DESCRIPTION	CAPACITY
MECHANICAL FILTRATION	42 m <sup>3</sup> /h
ULTRAFILTRATION (60÷120 lmh)	53÷106 m <sup>3</sup> /h
CARTRIDGE MICRO-FILTRATION	40 m <sup>3</sup> /h
REVERSE OSMOSIS	26 m <sup>3</sup> /h



# ULTRAFILTRATION & REVERSE OSMOSIS

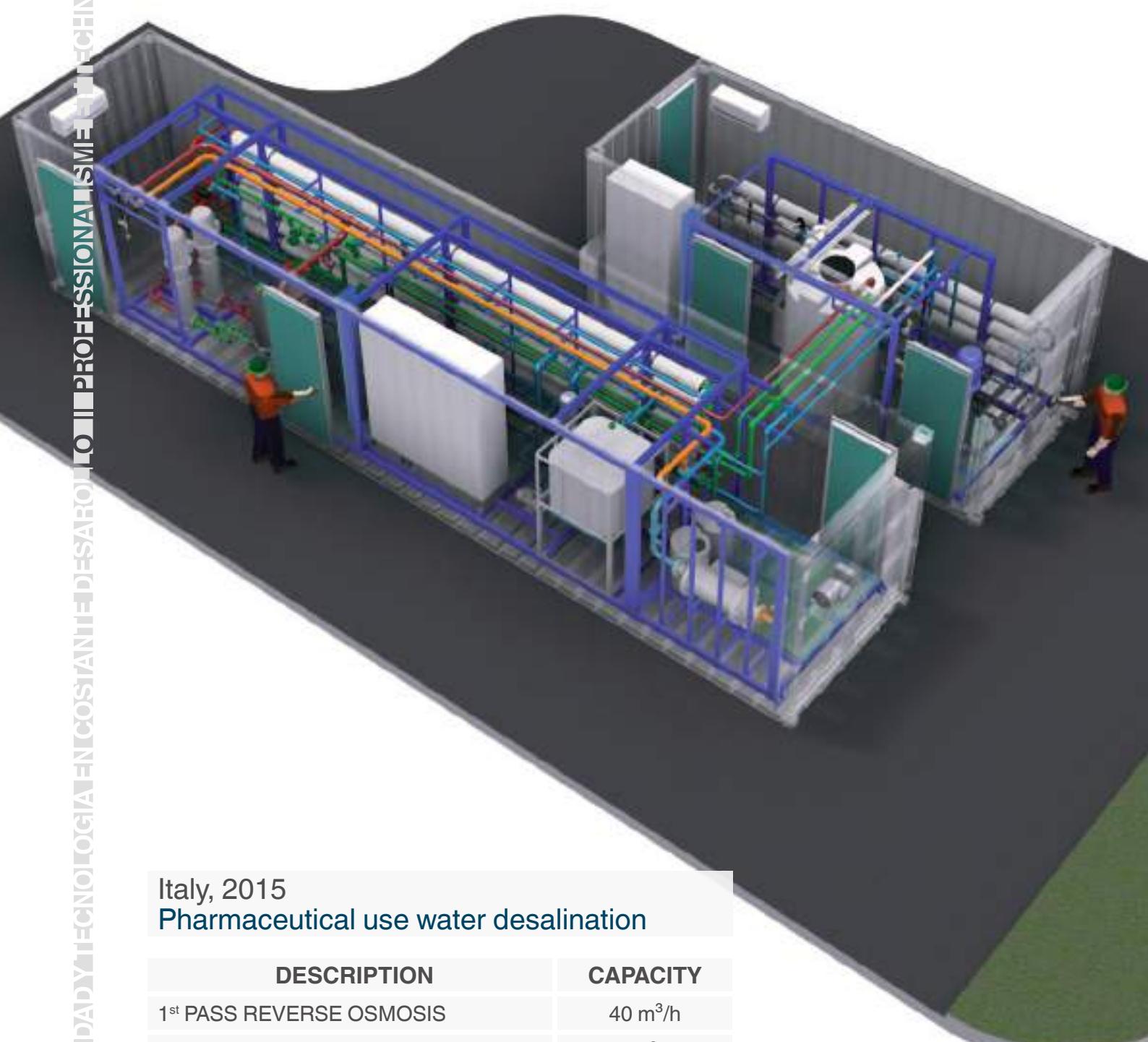


Italy, 2015  
Landfill leachate treatment

DESCRIPTION	CAPACITY
MECHANICAL FILTRATION	106 m <sup>3</sup> /h
ULTRAFILTRATION (60÷120 lmh)	98÷196 m <sup>3</sup> /h
CARTRIDGE MICRO-FILTRATION	108 m <sup>3</sup> /h
1 <sup>st</sup> PASS REVERSE OSMOSIS	83 m <sup>3</sup> /h
2 <sup>nd</sup> PASS REVERSE OSMOSIS	75 m <sup>3</sup> /h



# REVERSE OSMOSIS

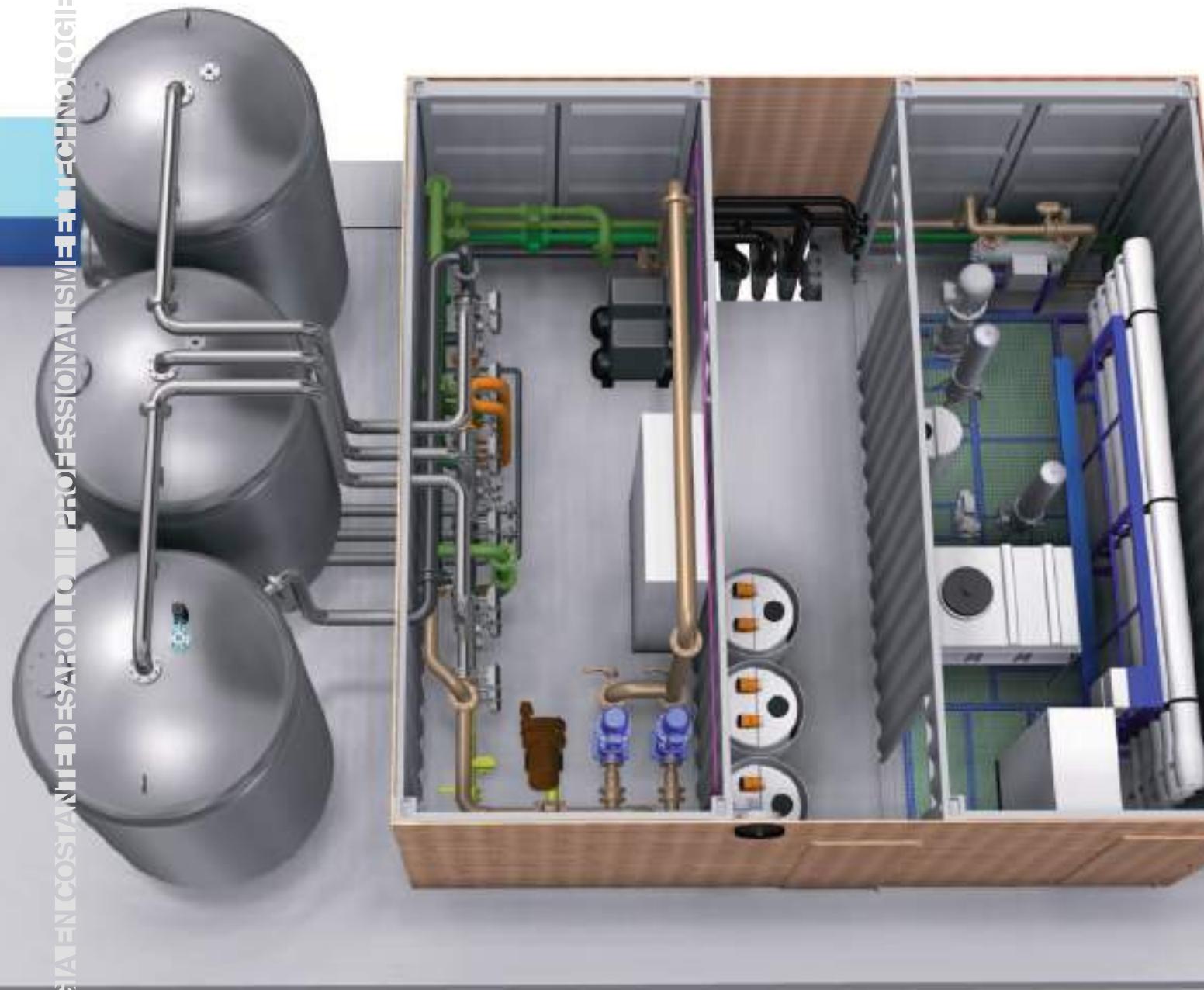


Italy, 2015  
Pharmaceutical use water desalination

DESCRIPTION	CAPACITY
1 <sup>st</sup> PASS REVERSE OSMOSIS	40 m <sup>3</sup> /h
2 <sup>nd</sup> PASS R.O. (1 <sup>st</sup> PASS CONCENTRATE)	8 m <sup>3</sup> /h
CARBON DIOXIDE REMOVAL	48 m <sup>3</sup> /h
CARTRIDGE MICRO-FILTRATION	48 m <sup>3</sup> /h



# MEDIA FILTRATION & REVERSE OSMOSIS



Italy, 2015  
Well water purification

DESCRIPTION	CAPACITY
MEDIA FILTRATION	36 m <sup>3</sup> /h
MEDIA ARSENIC REMOVAL SECTION	14 m <sup>3</sup> /h
R.O. ARSENIC REMOVAL SECTION	11 m <sup>3</sup> /h



# BRINE SOFTENING

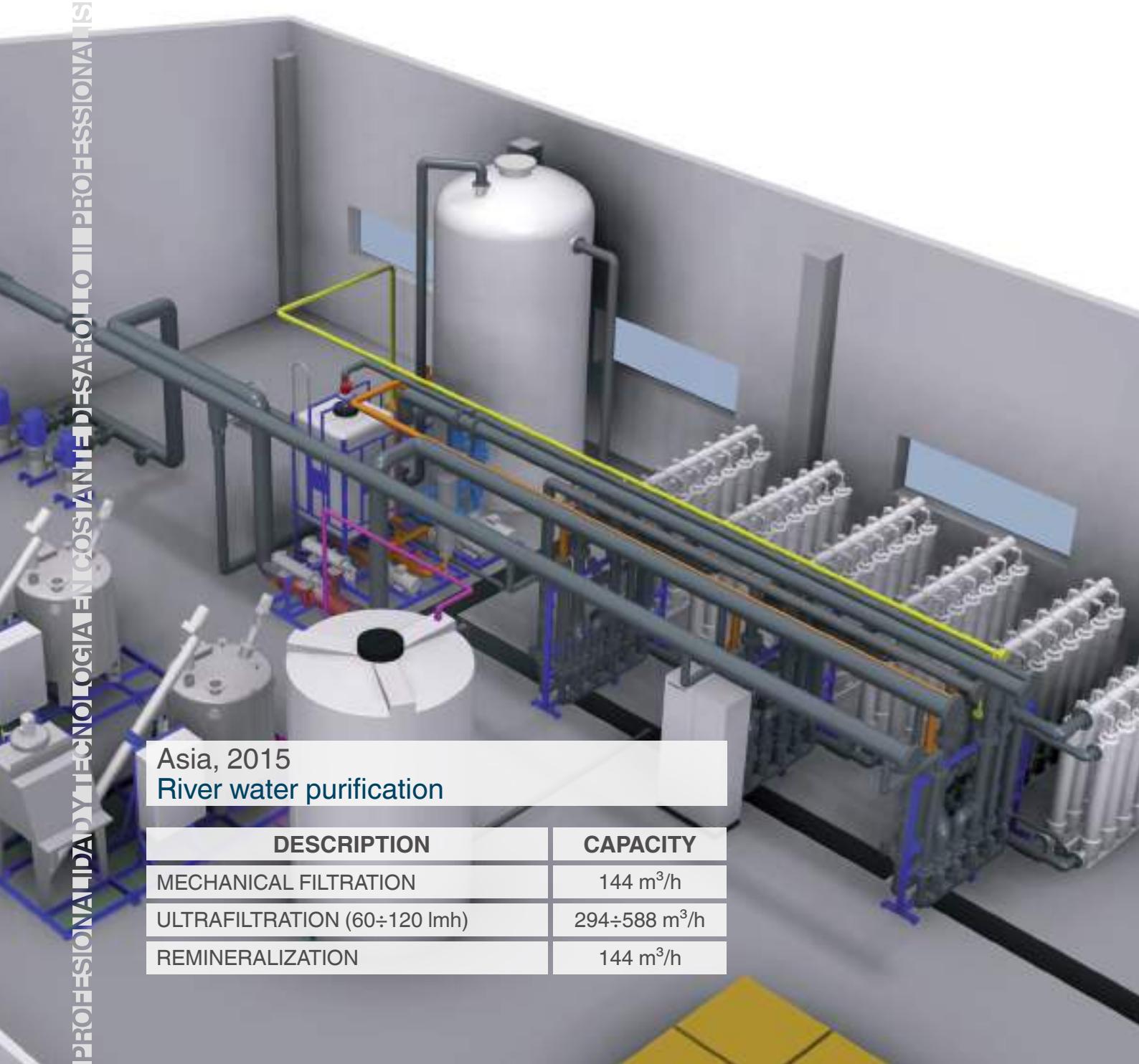


Italy, 2015  
Process water purification

DESCRIPTION	CAPACITY
BRINE SOFTENING	70 m <sup>3</sup> /h

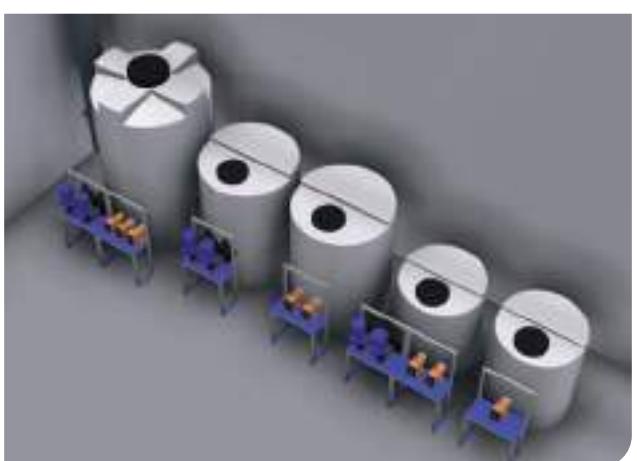
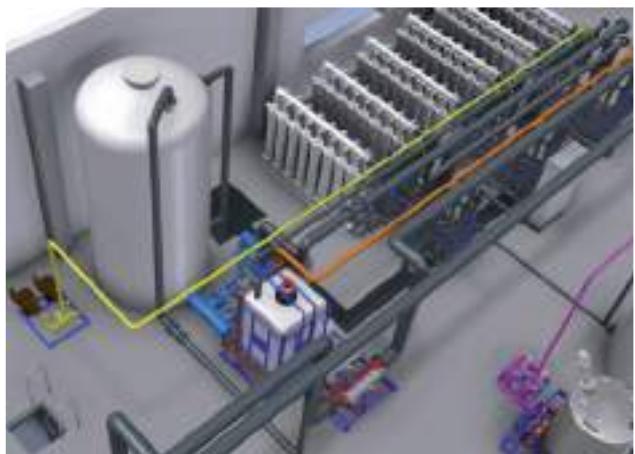
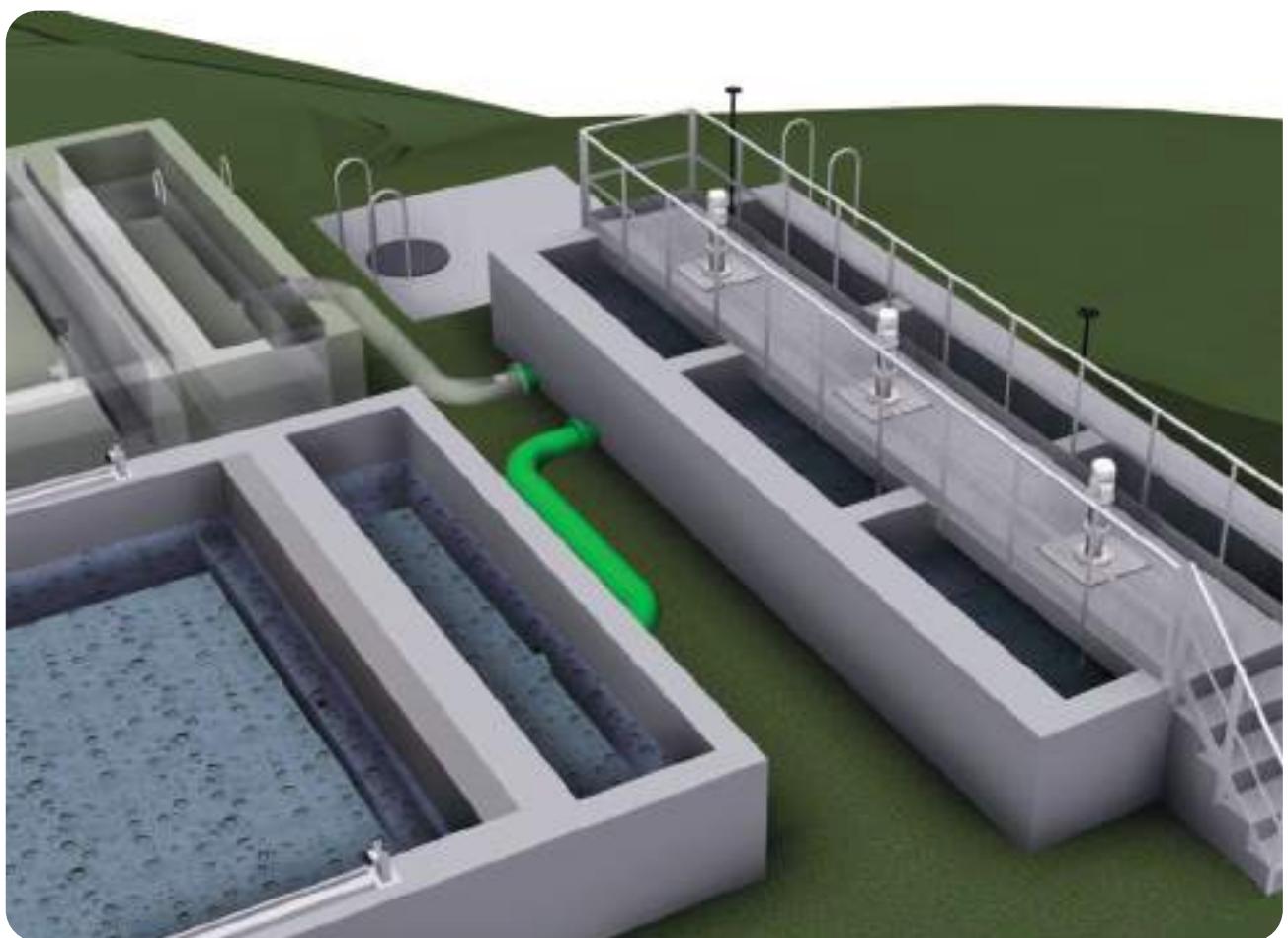


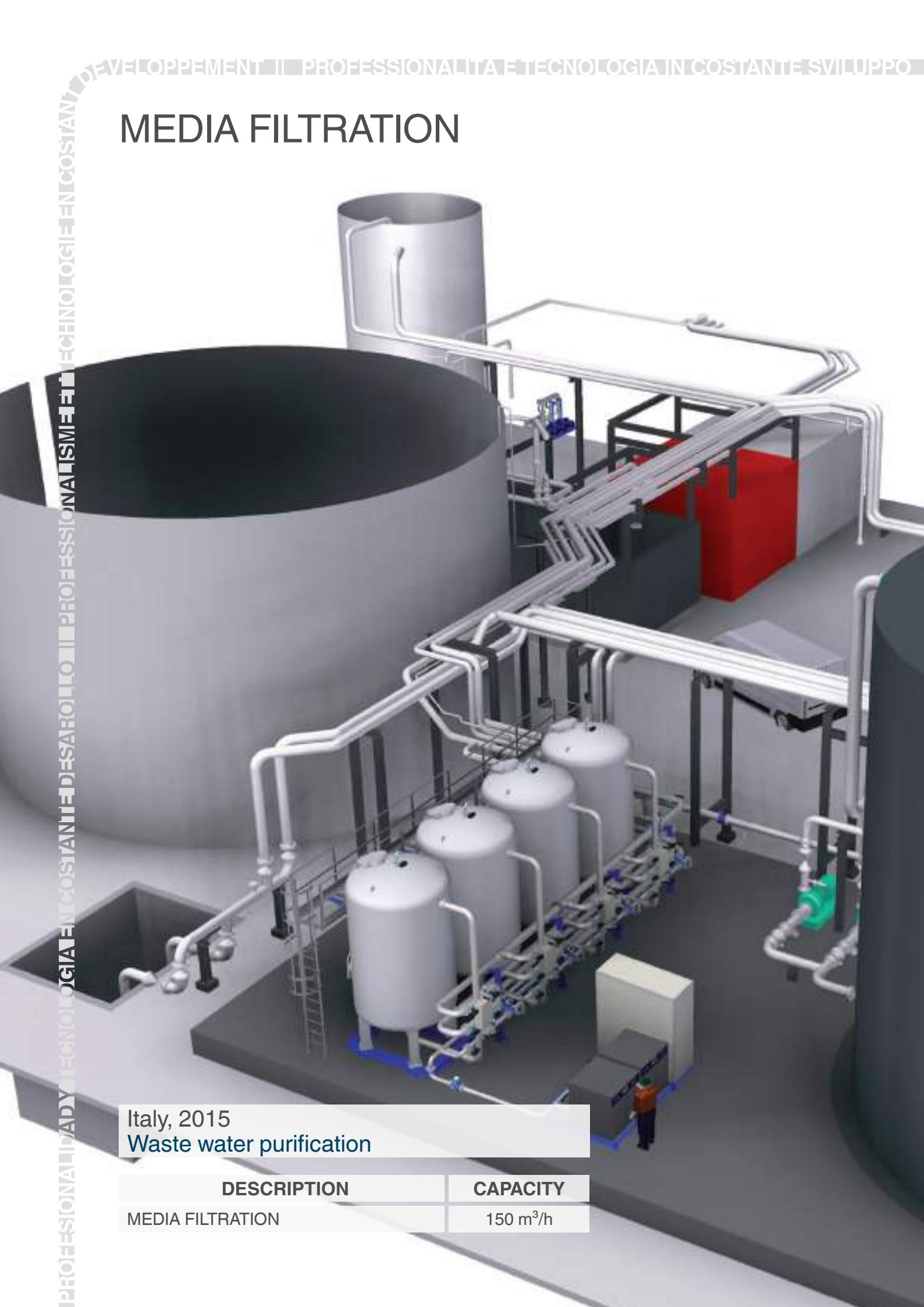
# ULTRAFILTRATION



Asia, 2015  
River water purification

DESCRIPTION	CAPACITY
MECHANICAL FILTRATION	144 m <sup>3</sup> /h
ULTRAFILTRATION (60÷120 lmh)	294÷588 m <sup>3</sup> /h
REMINERALIZATION	144 m <sup>3</sup> /h





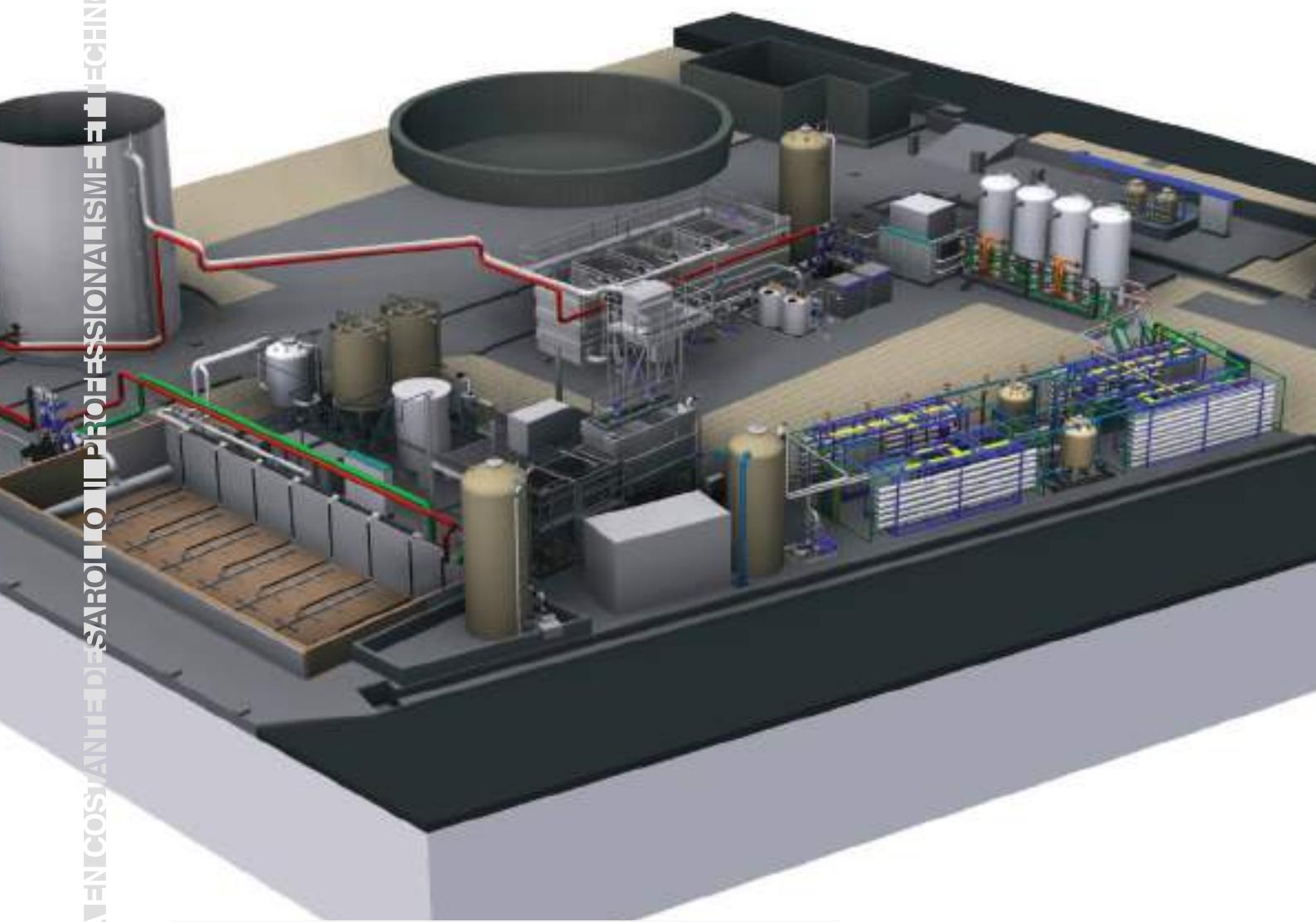
# MEDIA FILTRATION

Italy, 2015  
Waste water purification

DESCRIPTION	CAPACITY
MEDIA FILTRATION	150 m <sup>3</sup> /h



# PHYSICAL-CHEMICAL, BIOLOGICAL, MEDIA FILTRATION & REVERSE OSMOSIS

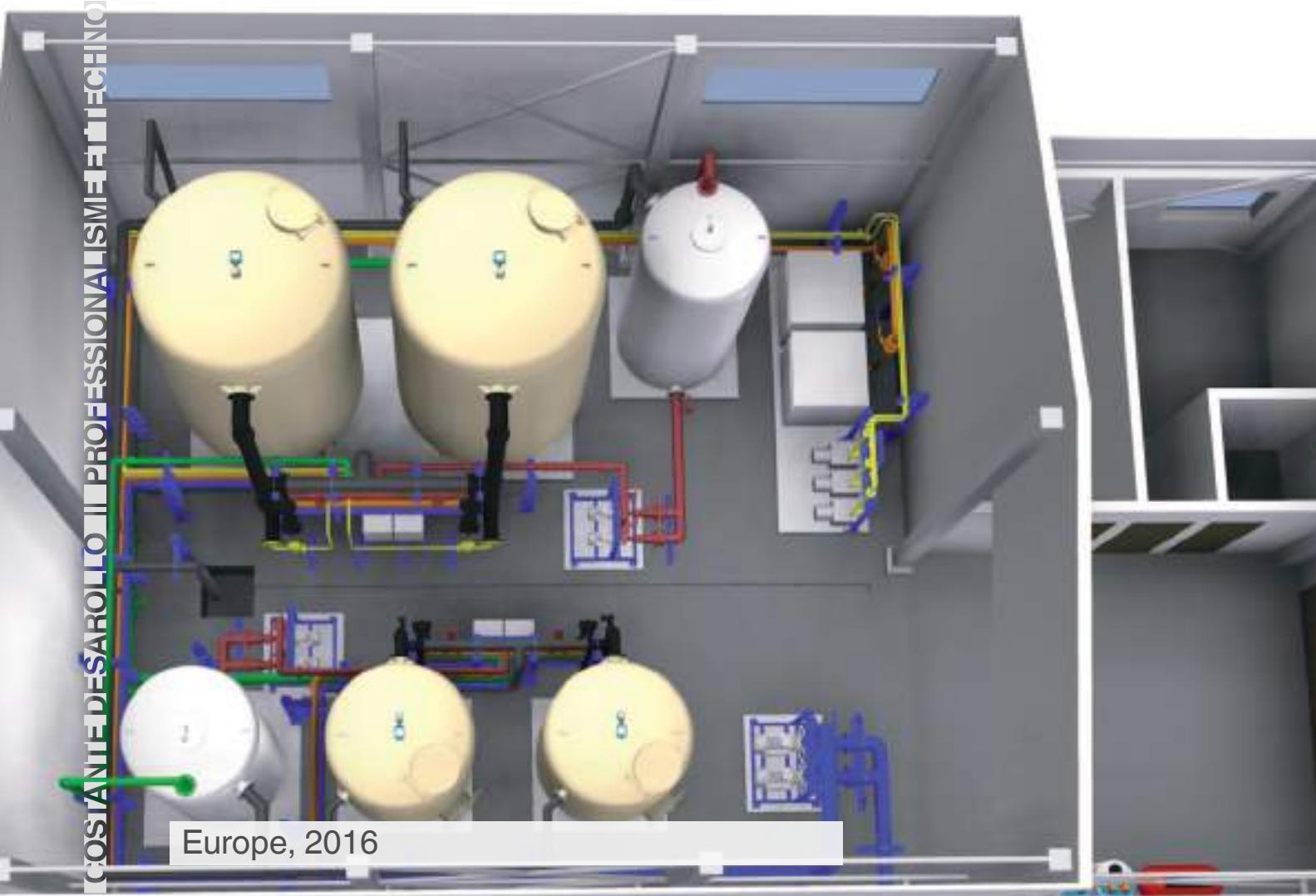


Italy, 2016  
Waste water reuse

DESCRIPTION	CAPACITY
CLARIFICATION	90 m <sup>3</sup> /h
MOVING BED BIOFILM REACTION	300 m <sup>3</sup> /h
MEMBRANE BIOLOGICAL REACTION	180 m <sup>3</sup> /h
MEDIA FILTRATION	120 m <sup>3</sup> /h
1 <sup>st</sup> PASS REVERSE OSMOSIS	100 m <sup>3</sup> /h
2 <sup>nd</sup> PASS REVERSE OSMOSIS	90 m <sup>3</sup> /h



# BIOLOGICAL & MEDIA FILTRATION



Europe, 2016

## Well water purification (plant 1)

DESCRIPTION	CAPACITY
BIOLOGICAL FILTRATION	80 m <sup>3</sup> /h
MEDIA FILTRATION	80 m <sup>3</sup> /h

## Well water purification (plant 2)

DESCRIPTION	CAPACITY
BIOLOGICAL FILTRATION	60 m <sup>3</sup> /h
MEDIA FILTRATION	60 m <sup>3</sup> /h



# ULTRAFILTRATION & REVERSE OSMOSIS

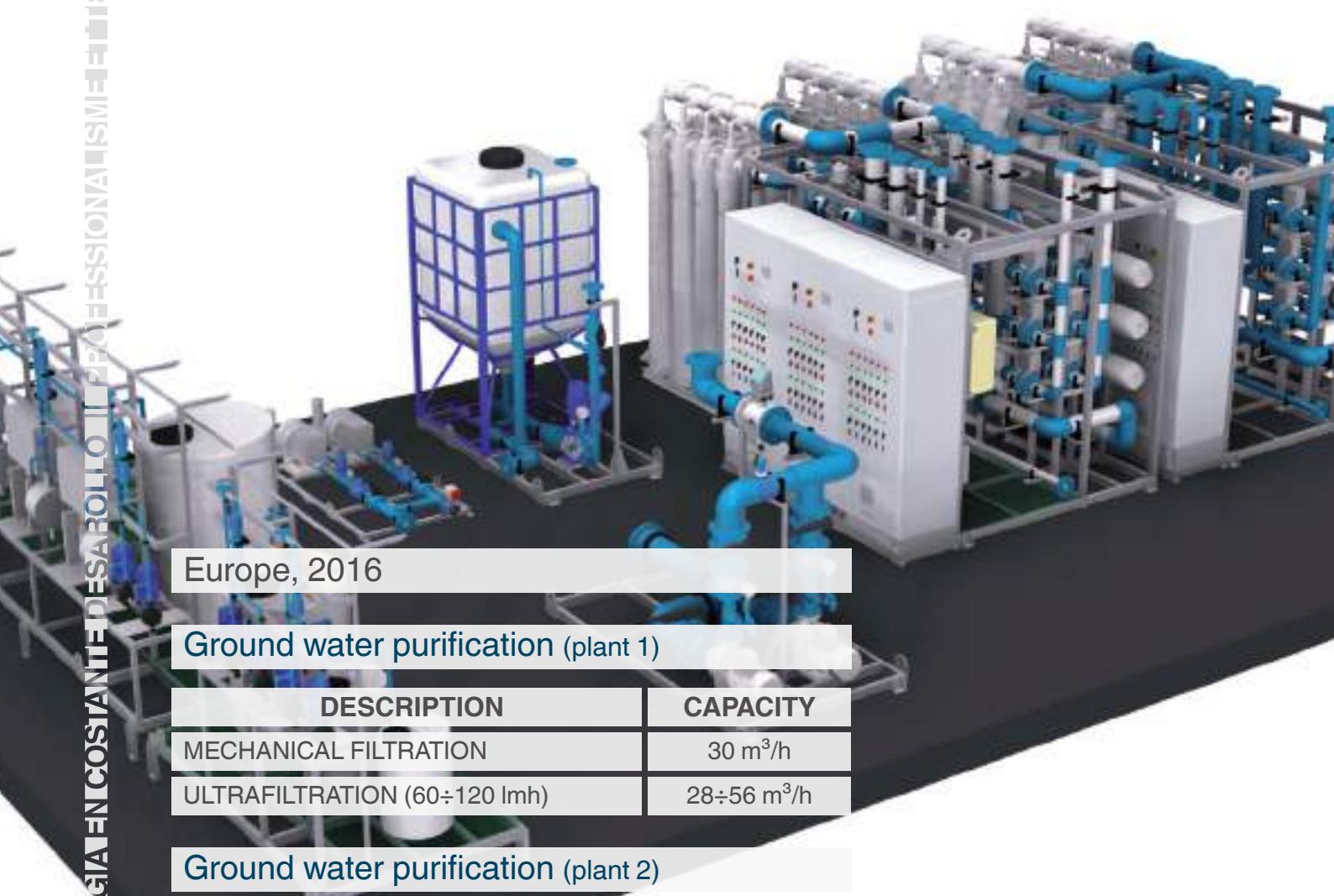


Central America, 2016  
Sea water desalination

DESCRIPTION	CAPACITY
MECHANICAL FILTRATION	200 m <sup>3</sup> /h
ULTRAFILTRATION (60÷120 lmh)	158÷316 m <sup>3</sup> /h
CARTRIDGE MICRO-FILTRATION	180 m <sup>3</sup> /h
REVERSE OSMOSIS	70 m <sup>3</sup> /h



# ULTRAFILTRATION



Europe, 2016

## Ground water purification (plant 1)

DESCRIPTION	CAPACITY
MECHANICAL FILTRATION	30 m <sup>3</sup> /h
ULTRAFILTRATION (60÷120 lmh)	28÷56 m <sup>3</sup> /h

## Ground water purification (plant 2)

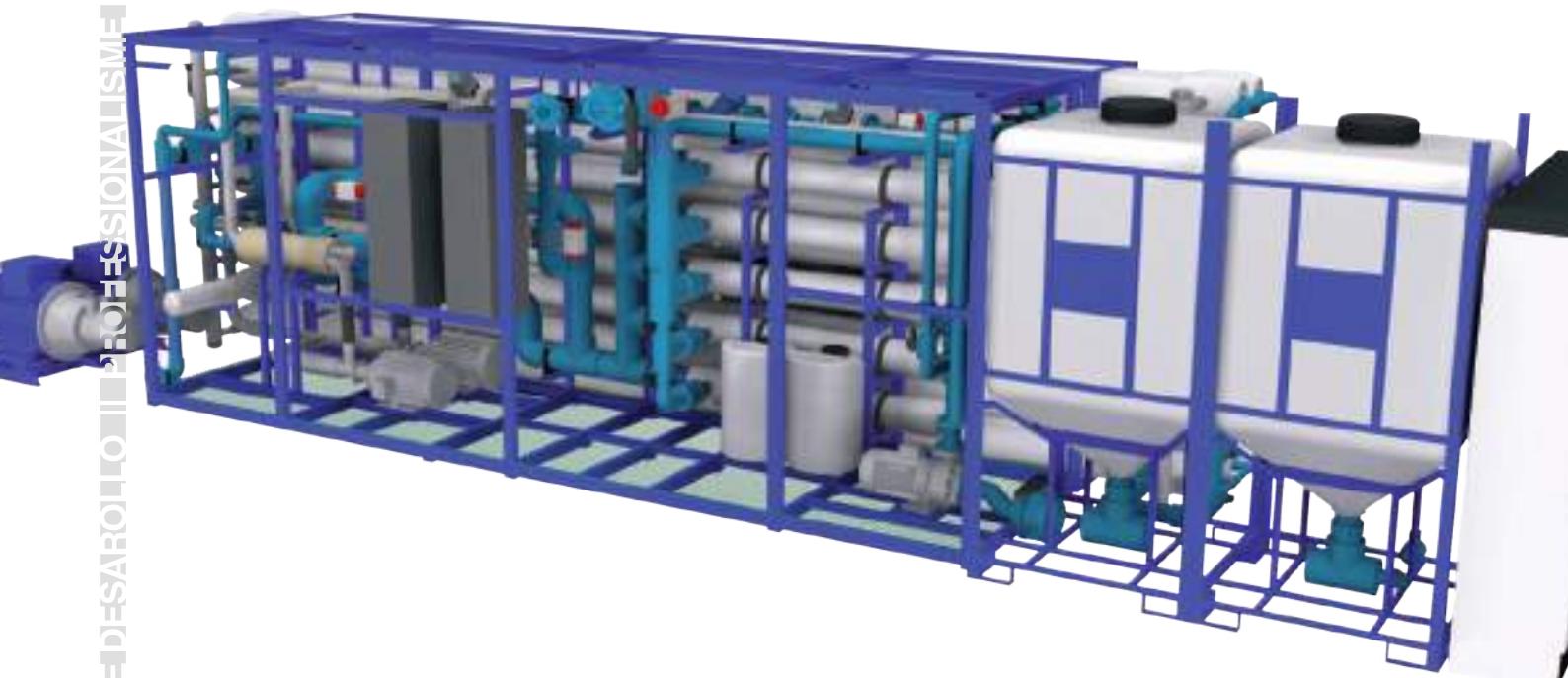
DESCRIPTION	CAPACITY
MECHANICAL FILTRATION	135 m <sup>3</sup> /h
ULTRAFILTRATION (60÷120 lmh)	129÷258 m <sup>3</sup> /h

## Ground water purification (plant 3)

DESCRIPTION	CAPACITY
MECHANICAL FILTRATION	155 m <sup>3</sup> /h
ULTRAFILTRATION (60÷120 lmh)	148÷296 m <sup>3</sup> /h



# REVERSE OSMOSIS

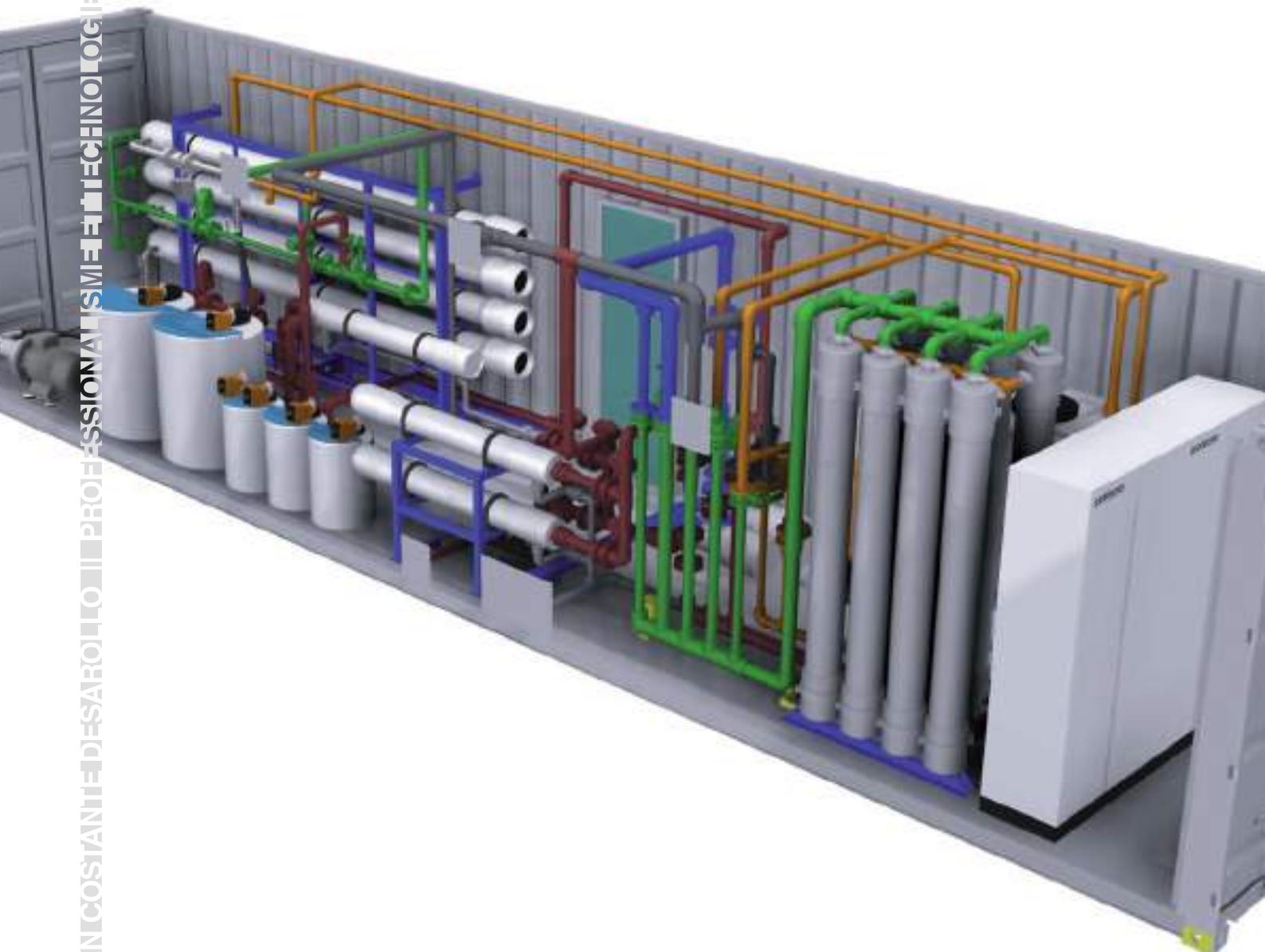


Italy, 2016  
Sea water desalination

DESCRIPTION	CAPACITY
CARTRIDGE MICRO-FILTRATION	170 m <sup>3</sup> /h
REVERSE OSMOSIS	80 m <sup>3</sup> /h



# ULTRAFILTRATION & REVERSE OSMOSIS



Central America, 2016  
Sea, Brackish & Surface water desalination

DESCRIPTION	CAPACITY
MECHANICAL FILTRATION	30 m <sup>3</sup> /h
ULTRAFILTRATION (60÷120 lmh)	25÷50 m <sup>3</sup> /h
CARTRIDGE MICRO-FILTRATION	23 m <sup>3</sup> /h
REVERSE OSMOSIS	10 m <sup>3</sup> /h





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