



**ROBUSCHI®**



# **Blower Solutions for Mechanical Vapour Recompression**





# Mechanical Vapour Recompression

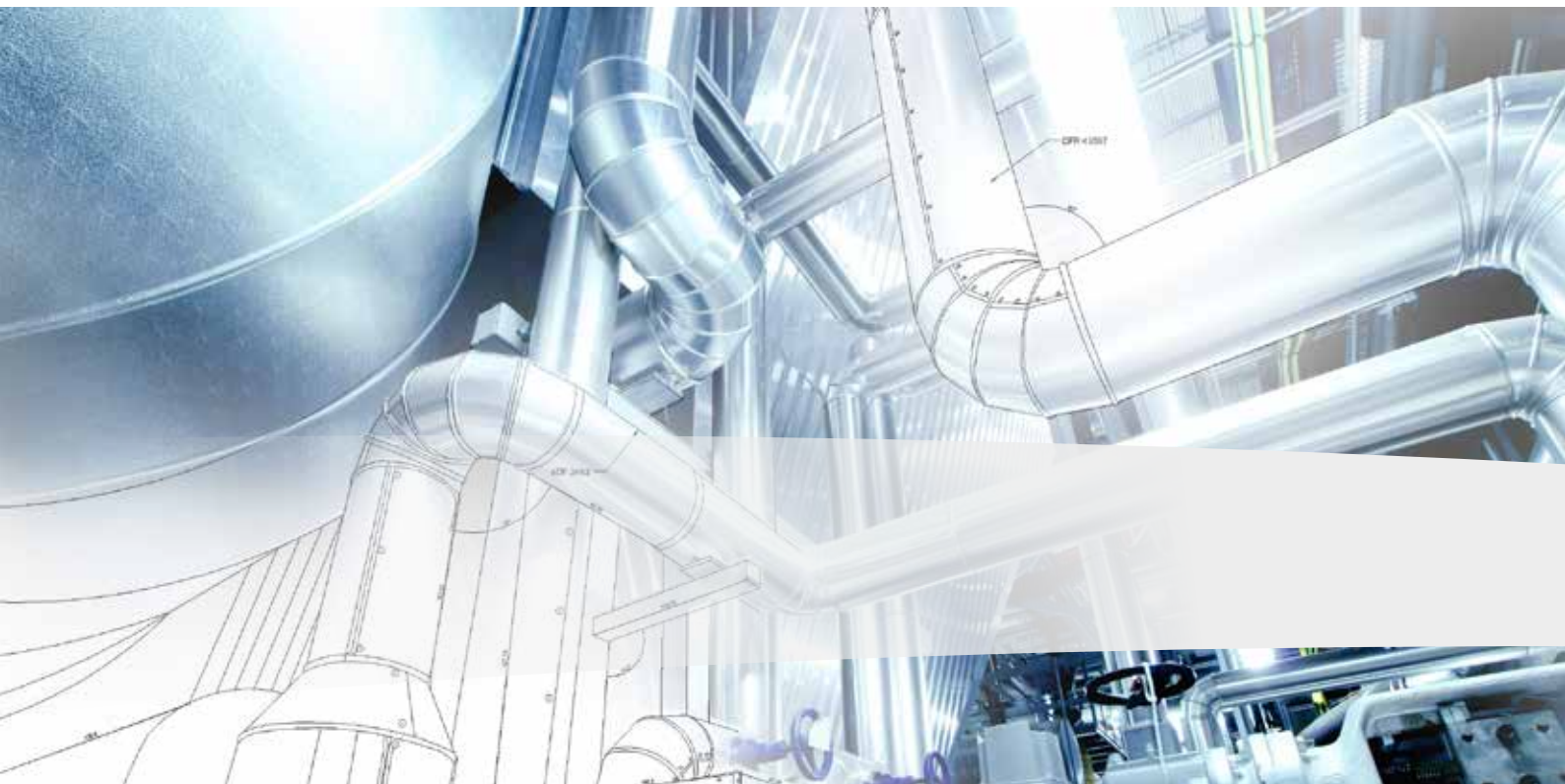
Helping our customers achieve their sustainability targets

Providing energy savings packaged in flexible solutions, at Robuschi, we aim to collaborate with you to design customized and optimised solutions for your Mechanical Vapour Recompression (MVR) needs. We work closely with you to ensure any changes to your system use the highest quality parts to improve performance. Our internal engineering team will provide you with the following crucial services:

- Competent support in assessing your system's technical demands, including warm up and operating cycle assessments to provide for a seamless integration of the blower.
- Optimum blower sizing utilizing dedicated software that accurately assesses all key parameters of the MVR process.
- State-of-the-art material selection for the air end, offering resistance to corrosion for all types of applications related to MVR.
- The most consistent sealing system choice that provides long and reliable operation throughout the life time of your system.
- Advanced fine tuning to accommodate Robuschi blower into MVR equipment, including:
  - custom fit skirts for drop in solution;
  - oil level filling systems for ease of service;
  - oil level sensors for preventive maintenance;
  - self-tensioning belt drive system.

Additionally, Robuschi field engineers are available to assist you during the installation and commissioning of the blower.

We will also suggest preventive maintenance plans and repair framework agreements to extend the benefits of Robuschi's technical expertise over the whole life span of the MVR system.





# Our Solution Features

We are able to offer a dedicated blower solution with our RBS rotary lobe series specifically for MVR applications.

## Advanced sealing systems for the rotor chamber.

- Compact seal, combining one seal for the vapour side and one for oil side.
- Double mechanical seal to segregate the rotor chamber from oil sumps.
- Soft packing seal, also used to segregate the rotor chamber from oil sumps.
- Special sealing version (PRV) with isolate oil sumps and vapour chamber to avoid any accidental contact with oil and vapour.

## Highest quality materials in scope of supply

- Cast Iron, Stainless Steel (304 or 316), also available in Duplex Steel with capacity up to:
  - 13,785 m<sup>3</sup>/h Differential pressure up to 1000 mbar in pressure
  - 13,859 m<sup>3</sup>/h Differential pressure up to -500 mbar in vacuum

## Numerous available options to seamlessly custom-fit your project, including:

- Water injection at the inlet to enhance the blower's temperature control;
- Heating elements with junction box and thermostat switch to control the warm-up stage of the MVR process;
- Customizable instrumentation set to suit your needs;
- Heavy-duty, anti-corrosive paint used on the air end and blower package to protect from harsh environments;
- Options for bare shaft only or fully-enclosed solution depending on your needs.



## Good for the Environment

*Our solutions are robust and efficient, as well as environmentally-friendly by offering you:*

- *Low operating costs;*
- *Low energy consumption;*
- *Simple design that's easy to operate and maintain.*



# For Diverse Application Requirements

## A Fit for Your Applications

At Robuschi, we design products that offer optimal compatibility for your MVR specific applications, including:

- Vapour Compression
- Fluid Recovery
- Evaporation

## A Fit for Your Industry

Robuschi provides solutions to a broad range of applications and processes used in various industries. Our MVR specific solutions can be custom designed for the following industries:

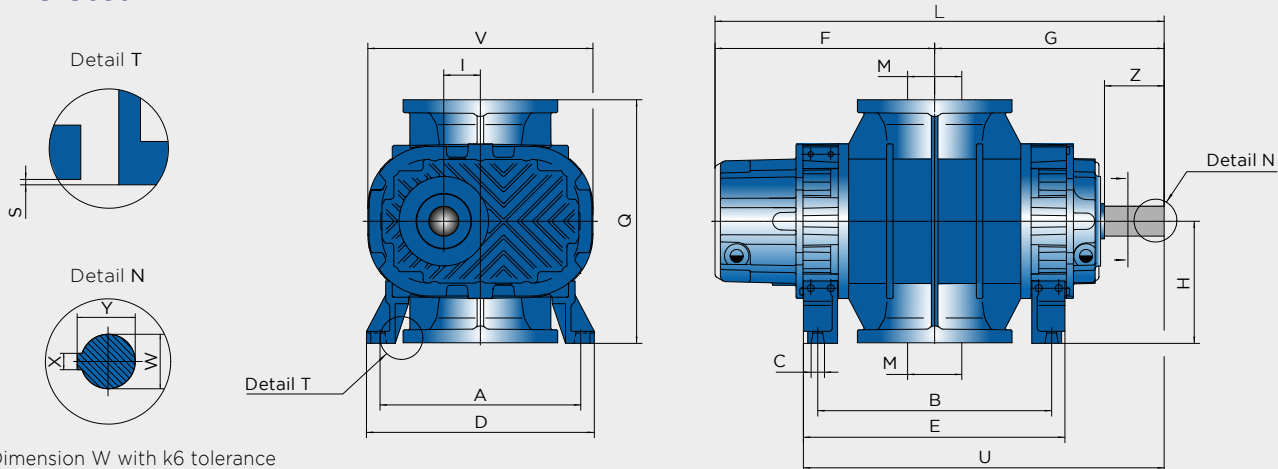
- Mechanical (oil emulsion treatment)
- Chemical and Pharmaceutical
- Metallurgy (galvanisation systems)
- Food and Beverage
- Wastewater Treatment
- Desalination



# Technical Data

## Dimensions and Weights

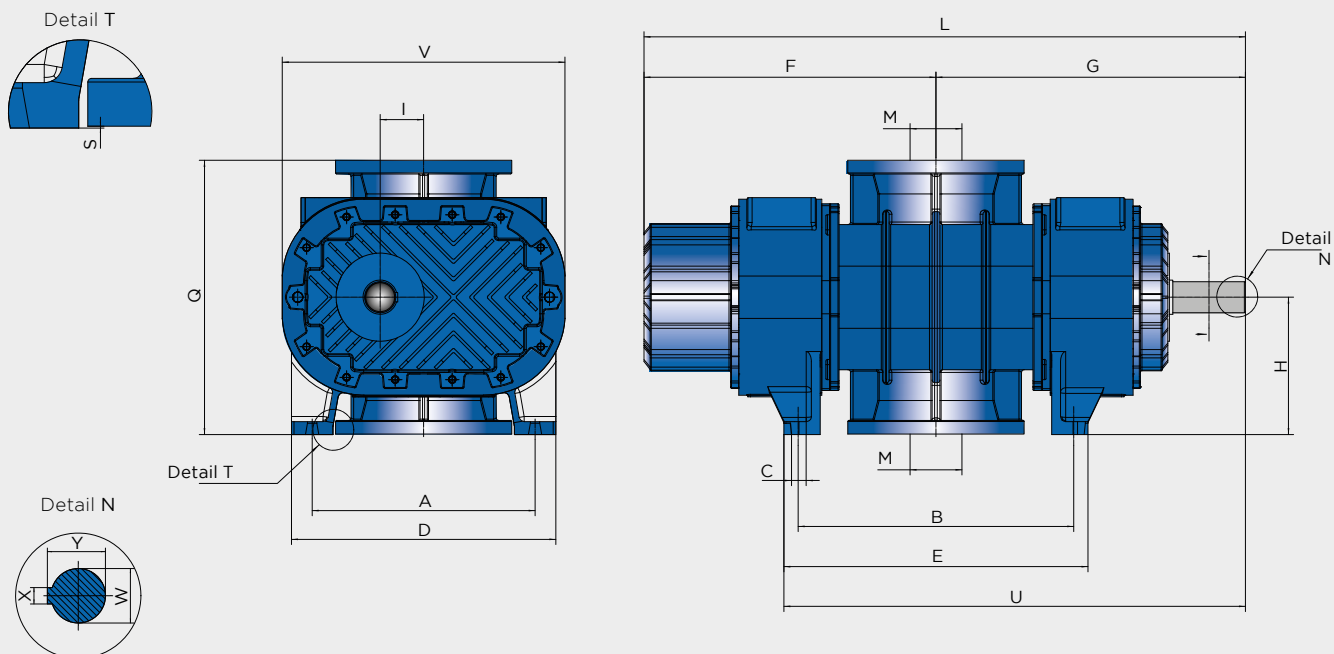
### RBS Steam



Dimension W with k6 tolerance  
up to 50 mm - m6 over 50 mm

Blower	A	B	C	D	E	F	G	H mm-0.5	I	L	M	Q	S	U	V	W	Z	X	Y	Weight (Kg)
<b>RBS 45 Steam</b>	295	275	12	331	311	273	295	160	42.5	568	80	319	1	452	295	38	80	10	41.0	97
<b>RBS 65 Steam</b>	340	341	14	385	387	340	361	185	53.5	701	150	369	1	555	345	48	110	14	51.5	160
<b>RBS 85 Steam</b>	370	451	18	420	502	415	433	225	67.5	848	150	449	1	685	415	55	110	16	59.0	250
<b>RBS 105 Steam</b>	430	521	18	486	577	473	507	265	84.0	980	200	529	1	795	522	60	140	18	64.0	400
<b>RBS 125 Steam</b>	550	610	22	640	666	538	578	300	106.0	1116	250	599	1	911	618	70	140	20	74.5	605
<b>RBS 145 Steam</b>	680	767	26	770	825	651	705	360	135.0	1356	300	719	1	1118	790	85	170	22	90.0	1040
<b>RBS 175 Steam</b>	800	994	30	920	1069	798	872	400	170.0	1670	350	798	2	1407	974	100	210	28	106.0	1890

### RBS Steam / PRV



Dimension W with k6 tolerance  
up to 50 mm - m6 over 50 mm

Blower	A	B	C	D	E	F	G	H mm-0.5	I	L	M	Q	S	U	V	W	Z	X	Y	Weight (Kg)
<b>RBS 85</b>	370	462	18	430	516	504	526	225	67.5	1030	150	449	1	784	435	55	110	16	59	320
<b>RBS 105</b>	430	532	18	510	587	563	597	265	84	1160	200	529	1	890	545	60	140	18	64	480
<b>RBS 125</b>	550	610	22	640	666	673	713	300	106	1386	250	599	1	1045	618	70	140	20	75.5	705
<b>RBS 145</b>	680	767	26	770	825	791	845	360	135	1636	300	719	1	1259	790	85	170	22	90	1140
<b>RBS 175</b>	800	994	30	920	1069	913	987	400	170	1900	350	798	2	1522	794	100	210	28	106	2000



## Maximum uptime. Extending performance.

We provide a range of services to ensure our customers' machines are well maintained to deliver maximum performance.

We offer preventative and planned maintenance programs, genuine parts, on-site service, professional maintenance and efficient training.

Within our service portfolio, you will find different options and services needed for optimal performance, maximum uptime and operating efficiency from your Robuschi equipment.

Visit us:

[www.robuschi.com](http://www.robuschi.com)

Scan the QR code to get it more



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