

# Mono<sup>®</sup>

A National Oilwell<sup>®</sup> Company

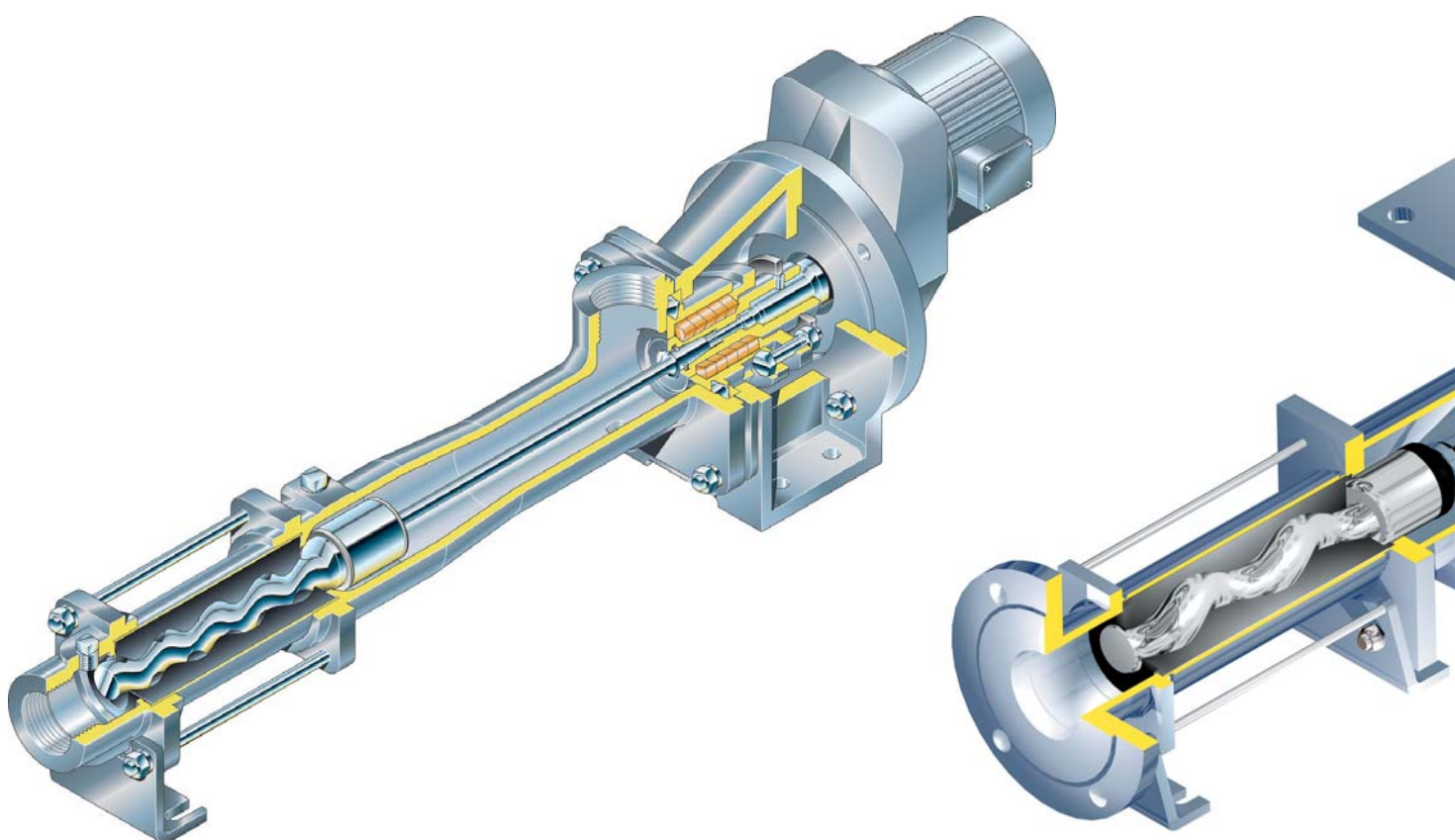
## THE MONOBLOC<sup>®</sup> B RANGE



**Mono<sup>®</sup>**  


# The Monobloc® B Range

**Mono®. *The name in bloc pumps***



## The Mono Pedigree

Mono Pumps Ltd., have been at the forefront of progressing cavity pump design since 1935. With the experience gained from over 60 years we are able to reflect the varying needs of our extensive customer base worldwide. And an all round efficiency and quality which our customers demand, and to which we are committed.

A long term commitment which is underlined by our attainment of ISO 9001:2000.

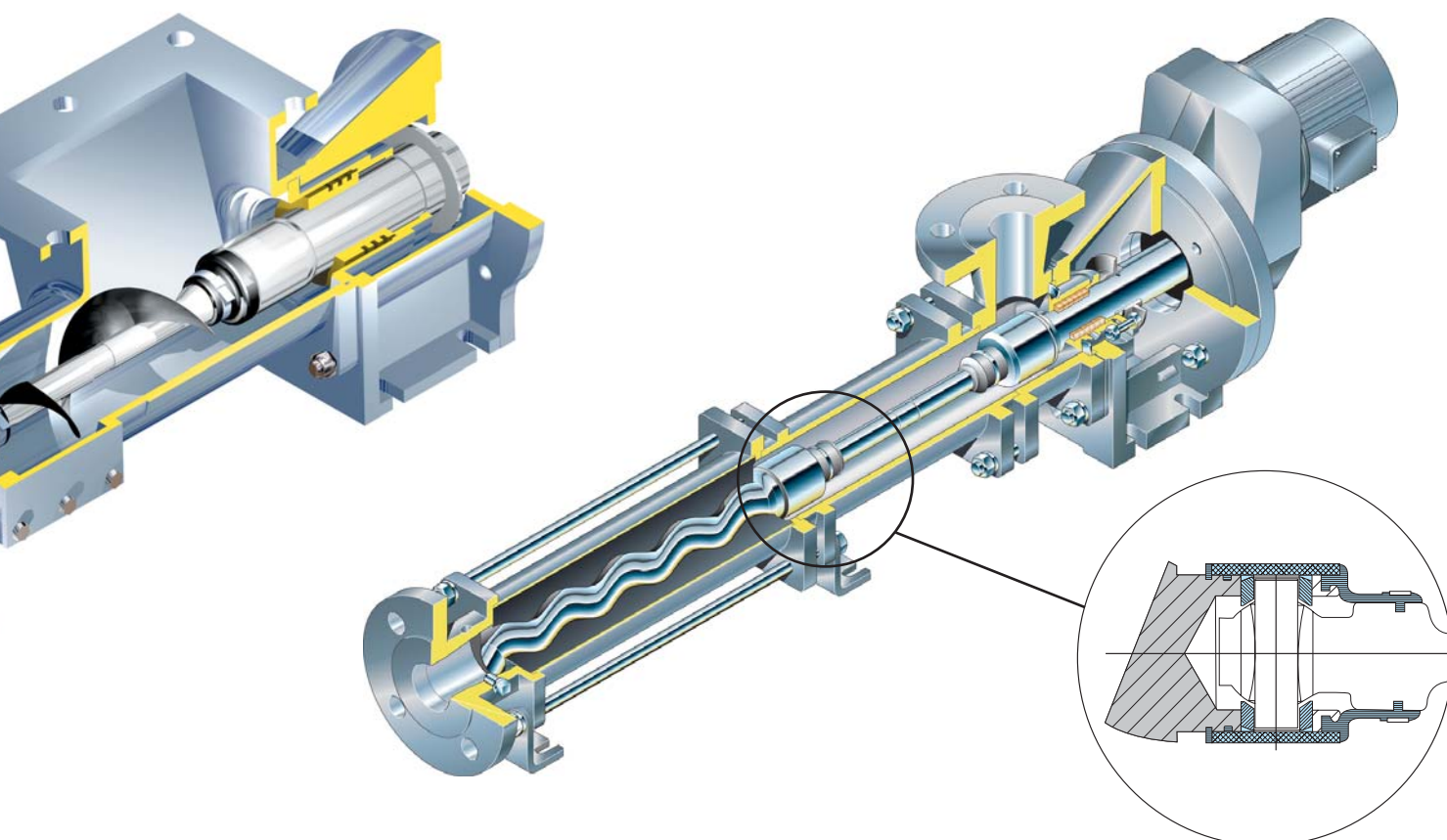


## Monobloc® B Range

The design philosophy behind the range is one of value for money, combined with compact construction and maximum performance characteristics.

There are a number of B Range models available in cast iron or stainless steel, capable of achieving capacities up to 225m³/h and differential pressures up to 24 bar.

For sludge applications, where the solids content requires assistance into the pumping element, the Monobloc B Range can be supplied with a square inlet.



## Design

The Monobloc B Range design incorporates many features developed, proven and more importantly, manufactured by Mono Pumps Ltd. within their internationally recognised and approved ISO 9001:2000 Quality Management System.

The rotor/drive train utilises an upgraded sealed pin joint design or Mono's unique Flexishaft® drive resulting from our continuous programme of research and development.

The criteria adopted by the Company for the design and development of new products, as documented in our ISO 9001:2000 procedures, ensure that all products are endurance tested at maximum speed and pressure.

Varying gearbox/motor drive arrangements are flange mounted with a plug-in shaft fixing to facilitate ease of assembly and dismantling.

# B Range Pump Coding

FEATURES	DESCRIPTION	BASIC PUMP CODE										STANDARD VARIATION				
		1	2	3	4	5	6	7	8	9	10	/	12	13	14	15
BODY MATERIALS	Cast Iron	C														
	Stainless Steel	S														
PUMP DESIGN	Monobloc		B													
NOMINAL PUMP CAPACITY AT MAXIMUM SPEED AND ZERO PRESSURE	1.3m³/h @ 1750 rev/min			0	1											
	3.3m³/h @ 1750 rev/min			0	2											
	10m³/h @ 1500 rev/min			0	3											
	13m³/h @ 1500 rev/min			0	X											
	22m³/h @ 1000 rev/min			0	4											
	37m³/h @ 800 rev/min			0	5											
	57m³/h @ 700 rev/min			0	6											
	79m³/h @ 600 rev/min			0	7											
	97m³/h @ 500 rev/min			0	8											
	125m³/h @ 450 rev/min			0	9											
	165m³/h @ 400 rev/min			1	0											
	225m³/h @ 350 rev/min			1	2											
PUMP STAGES	Low Pressure					K										
	One					1										
	Two					2										
	Four					4										
BUILD OPTIONS	Bareshaft (Size 041 & above)						H									
	Refer to Build Options in Volume 1						A									
							B									
							C									
MECHANICAL SEAL END COVER & DUTY CONDITIONS	Str.thro E/C, Mk 1 rotor								E							
	90° E/C, Mk 1 rotor								F							
	Str.thro E/C, Mk 0 rotor								K							
	90° E/C, Mk 0 rotor								M							
PACKED GLAND END COVER, STATOR DESIGN & DUTY CONDITIONS	Str.thro E/C, Mk 1 rotor							C								
	90° E/C, Mk 1 rotor							G								
	Str.thro E/C, Mk 0 rotor							X								
	90° E/C, Mk 0 rotor							Y								
DESIGN MARK NUMBER										1						
										2						
	B-Range Square Inlet								S							
STATOR MAT'L	RA, RR etc.									A						
ROTATING PARTS	1, 3, 4, 5, 8										3					
TYPICAL BASIC PUMP CODING	Cast Iron Monobloc size 05 single stage. Mechanical seal, str thro E/C, Std duty conditions, Mk 0 rotor, Design 1, Natural rubber stator, Code 3 rotating parts	C	B	0	5	1	B	K	1	A	3					
PRIME MOVER AND PORT OPTIONS	'G' - Standard Bloc															
	'H' - Standard Bareshaft															
	'C' - Bareshaft - Mono Australia Only	C	B	0	5	1	B	K	1	A	3	/	G			
	'A' - ANSI + Access Ports															
	'E' - Standard ANSI															
	'J' - Japan															
FULL PUMP CODING TO BE STAMPED ON PUMP NAMEPLATE																

## NOTES:

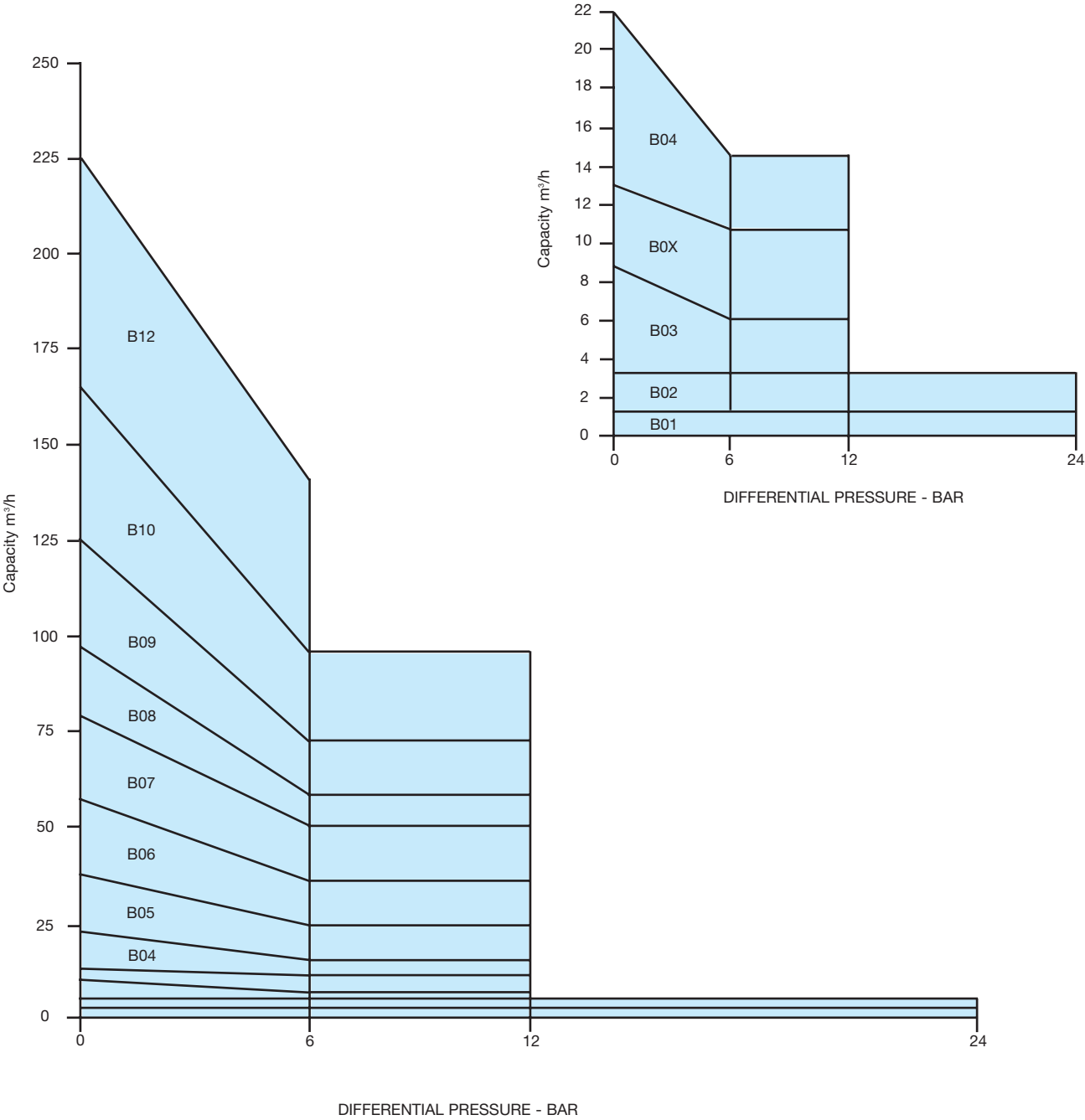
1) Pump sizes B01- B03, B0X1 and B0X2 are fitted with a Flexishaft® and carry the 5 year Flexishaft Warranty.

2) Pump sizes B012- B032 have BSP Parallel threads. All others are flanged to BS4504.

3) A wide range of stator materials are available to cover various liquids.

4) Hard faced, single mechanical seal is the standard offering, other options available.

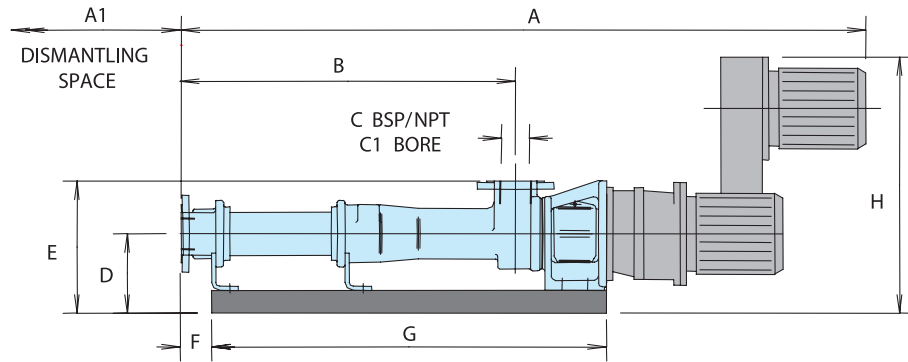
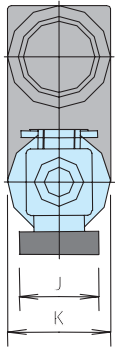
# B Range Performance Data



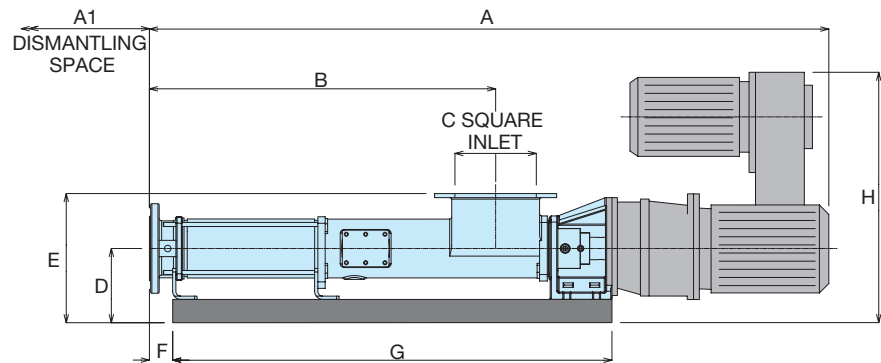
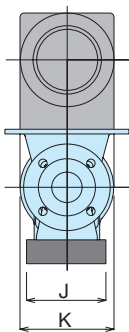
NOTES:

For guidance in selecting a pump, please refer to Mono Pumps Ltd., Audenshaw, Manchester.

# B Range Unit Dimensions



MODEL	A	A1	B	C	C1	D	E	F	G	H	J	K	Wt
<b>B012</b>	1121	115	444	1 1/4"		174	235	42	535	587	229	254	90
<b>B014</b>	1265	250	588	1 1/4"		174	235	42	679	652	229	270	101
<b>B021</b>	1121	115	444	1 1/4"		174	235	42	535	587	229	254	90
<b>B022</b>	1265	250	588	1 1/4"		174	235	42	679	652	229	270	101
<b>B024</b>	1895	525	944	1 1/2"		174	239	46	1035	652	229	270	122
<b>B03K</b>	1331	250	650	1 1/2"		174	239	46	741	652	229	270	108
<b>B031</b>	1186	165	505	1 1/2"		174	239	46	596	652	229	270	101
<b>B032</b>	1331	300	650	1 1/2"		174	239	46	741	652	229	270	108
<b>B0XK</b>	1450	302	752		50	174	279	51	855	652	229	270	119
<b>B0X1</b>	1267	135	569		50	174	279	51	672	652	229	270	115

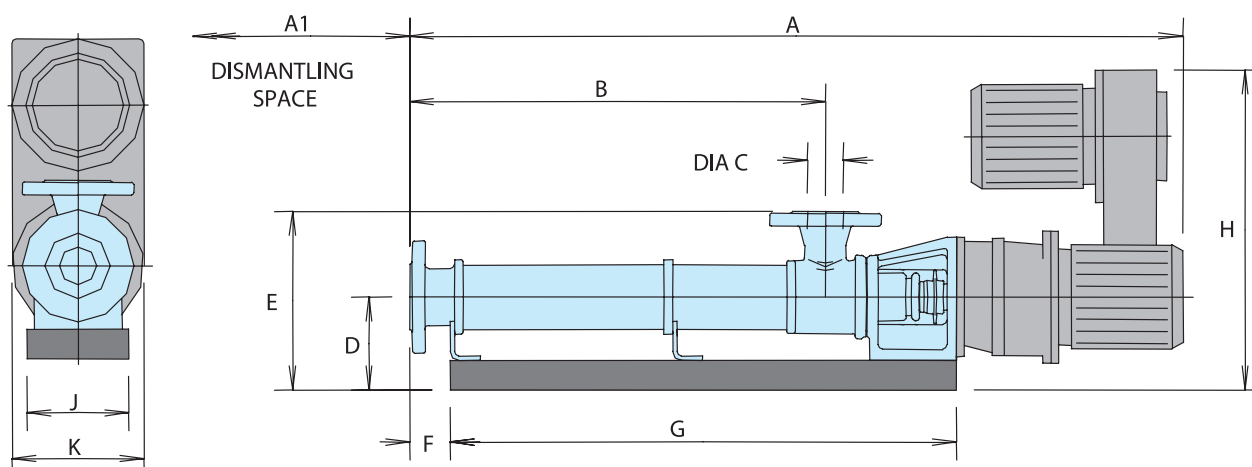


MODEL	A	A1	B	C	D	E	F	G	H	J	K	Wt
<b>B041</b>	1399	250	572	165	201	316	55	773	634	203	308	142
<b>B04K</b>	1604	455	777	165	201	316	55	978	634	203	308	153
<b>B051</b>	1566	310	631	165	201	321	57	913	646	203	326	187
<b>B05K</b>	1826	570	891	165	201	321	57	1173	646	203	326	203
<b>B061</b>	1841	365	844	200	214	344	57	1073	792	305	414	287
<b>B06K</b>	2153	677	1156	200	214	344	57	1385	792	305	414	319
<b>B071</b>	2249	430	973	240	239	399	57	1250	918	305	468	547
<b>B07K</b>	2618	799	1341	240	239	399	57	1619	918	305	468	601
<b>B081</b>	2293	475	1017	240	239	399	57	1355	918	305	468	555
<b>B08K</b>	2701	883	1425	240	239	399	57	1763	918	305	468	610

Wt is the approximate weight of the largest combination of pump and drive (kg).  
Dimensions shown represent the largest combination of pump and drive. Dimensions in mm.



# B Range Unit Dimensions



MODEL	A	A1	B	C	D	E	F	G	H	J	K	Wt
<b>B04K</b>	1604	455	803	65	201	316	55	978	634	203	308	147
<b>B041</b>	1399	250	598	65	201	316	55	773	634	203	308	136
<b>B042</b>	1713	455	803	65	201	316	55	978	778	203	350	186
<b>B05K</b>	1909	570	1010	80	201	321	57	1173	646	203	326	202
<b>B051</b>	1649	310	750	80	201	321	57	913	646	203	326	186
<b>B052</b>	2049	570	975	80	214	334	55	1186	792	305	414	280
<b>B06K</b>	2153	677	1206	100	214	344	57	1385	792	305	414	316
<b>B061</b>	1841	365	894	100	214	344	57	1073	792	305	414	284
<b>B062</b>	2414	680	1153	100	239	369	57	1415	930	305	468	546

<b>B07K</b>	2618	799	1396	125	239	399	57	1619	918	305	468	598
<b>B071</b>	2249	430	1027	125	239	399	57	1250	918	305	468	544
<b>B072</b>	2659	707	1395	125	239	399	57	1618	930	305	468	602
<b>B08K</b>	2762	883	1539	125	239	399	57	1763	918	305	468	609
<b>B081</b>	2354	475	1131	125	239	399	57	1355	918	305	468	554
<b>B082</b>	2835	880	1484	150	249	409	57	1795	940	305	468	630
<b>B09K</b>	2988	992	1727	150	249	434	50	1992	940	305	468	707
<b>B091</b>	2526	530	1265	150	249	434	50	1530	940	305	468	625
<b>B092</b>	3026	990	1727	150	249	434	90	1952	963	305	468	753

<b>B10K</b>	3174	1141	1875	150	249	434	90	2100	940	305	468	757
<b>B101</b>	2643	610	1344	150	249	434	90	1569	940	305	468	668
<b>B102</b>	3282	1050	1937	150	327	512	90	2250	1154	432	470	914
<b>B12K</b>	3708	1213	2344	200	327	552	32	2734	1154	432	470	1052
<b>B121</b>	3074	570	1710	200	327	552	32	2100	1154	432	470	890

Wt is the approximate weight of the largest combination of pump and drive (kg).  
Dimensions shown represent the largest combination of pump and drive. Dimensions in mm.



# Applications

The Monobloc B Range has been designed for sections of industry where a compact pump is required at exceptional value for money, particularly with the water and waste treatment industry in mind. Specific areas of suitability are:-

## Waste Water Treatments

Liquids of various viscosities:  
water to thickened sludges, slurries to non-flowing, de-watered sludges



Solids inclusions:  
suspended or settled solids, fibrous or raggy solids.

Abrasive particles:  
sand, gravel and industrial wastes.

In addition, polyelectrolytes, lime, acids, carbon slurries, chlorine, digested sewage sludge, filter pressed sludges, macerated raw sewage sludge and aluminium sulphate can also be handled by these pumps.

Other features that make the Monobloc B Range ideal for the water industry are its good suction lift capability of over 8 metres, positive displacement for process control and variable speed for accurate dosing.



The small pumps use the latest technology incorporating the proven Mono Flexishaft principle. This feature improves pump reliability and coupled with the modularity of components, the cost of stocking spare parts is significantly reduced.

The Monobloc B Range is ideally suited to the following applications:

## Paper and Ceramics Industry

titanium dioxide	bentonite slurry
latex	coating mixes
starch	ceramic slip
	clay slurry

## Chemical Industry

phosphoric acid	alum
caustic solutions	petroleum spirit
diesel fuel oil	ferric chloride
	ethylene glycol



## Mining Industry

grouting mixes	cavity filling
coal slurries	nuisance and waste water

## Food Industry

molasses	saucers
cooking oil	whey
jellies	fruit juices
yoghurt	pet food





# Service and Technology

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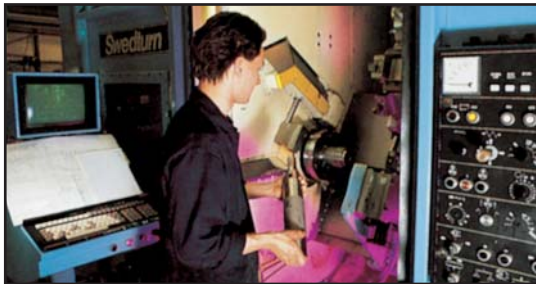
At Mono Pumps Ltd. full pre-sales support and post-order back up is all part of the service.

We use the latest technology, such as computer based flexible manufacturing systems, computerised bar stores and information systems.

These control systems are supported by advanced manufacturing facilities, for example, a comprehensive stator manufacturing plant, to ensure that we always produce pumps and parts to a consistently high standard.

Attention to detail, combined with a wealth of technical advice and CAPS (Computer Aided Pump Selection), ensures clients will receive a product that is quality assured.

A quality and reliability you can count on, with the added reassurance that all products are supplied and delivered on time - every time.



## Quality

It is the policy of Mono Pumps Ltd. to achieve Total Quality performance in meeting the requirements of both external and internal customers. Total Quality performance means understanding who the customer is, what the requirements are, and meeting those requirements, without error, on time, every time.

Mono Pumps Ltd. has been approved to ISO 9001 by Lloyds Register of Quality Assurance since 1990.

This continuing commitment to Quality is a major element of the Company's strategy of product development. The Company manufactures products within a Quality Management System which is independently measured against industry recognised standards throughout the world.

## Genuine Mono® Parts

Quality is assured. Strict quality procedures ensure dimensionally accurate interchangeable parts. Quick delivery and easy availability are provided by Mono Pumps Ltd. or our International Distributor Network. Full back-up services are also on hand to give technical advice to customers and distributors as and when necessary.

By using only genuine Mono spares you automatically reduce the risk of pump breakdown and preserve the full Mono guarantee.

Mono spares result in lower fitting costs, greater efficiency, reduced running costs and longer pump life - as well as guaranteed quality and value for money.

