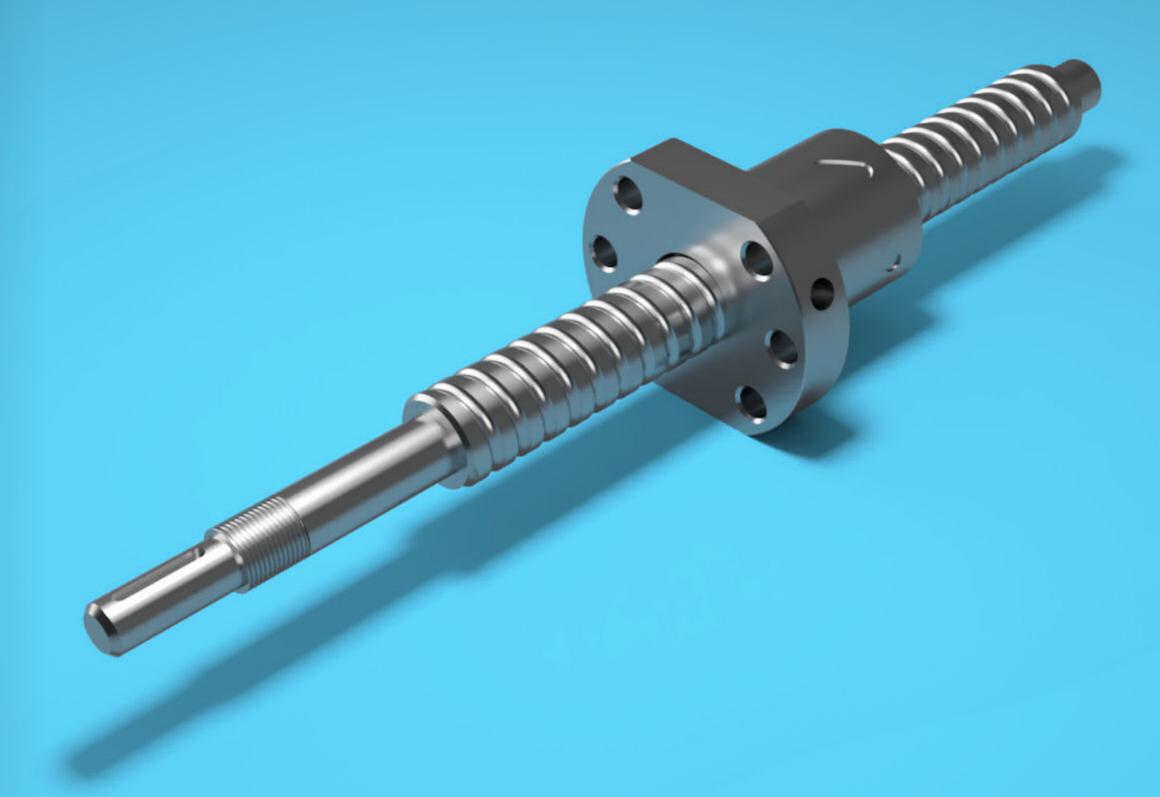
Transport Ball Screws







Transport Ball Screws

ABSSAC offers an Industrial ball screw range, termed the Transport range, that effectively converts high torque rotary input into precise high load linear movement. The Transport ball screw ranges can be delivered cut to length and if required, machined ready to fit into the required support bearing mounts. Utilising the recirculating ball bearing nut technology as the base of the product, the Industrial class ball screws encompass screw diameters from 12mm up to 80mm as standard. In many cases multiple ball circuits, per ball nut, are employed to achieve greater load capacities making the product suitable for many types of application.

As the name suggests, the range is aimed at the more industrial type application with dynamic load capacities from 900 to 13449 kgf being catered for. Whatever the load, it will be delivered with both high efficiency and low drive torque. Stocked screw lengths of up to 4500mm are available up to 32mm diameter and screw lengths up to 5600mm long for screws above 40mm in diameter.

Life Expectancy

ABSSAC is often asked about the life expectancy of the ball screw products it supplies within applications. Whilst this can sometimes be a difficult thing to accurately calculate, as parameters within an application can change during its life, it can nevertheless be achieved. During a recent design brief with one of our packaging machinery customers, a new range of machines were being designed with exceptionally long MTBS. (mean time between service). In fact, the machines unique selling point was to be its reliability and long service intervals. The ball screw to be used would also provide the primary linear movement required within the design, so was a critical part of the design guarantee.

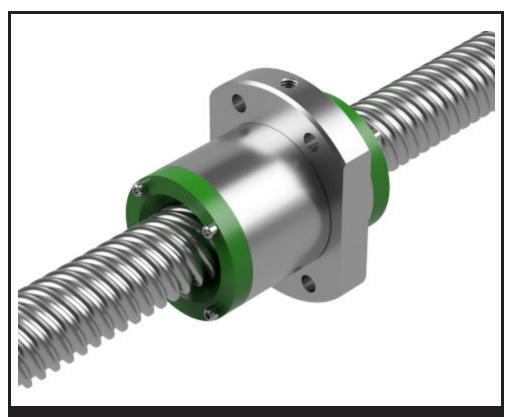
Typically our Transport ball screws are rated for millions of mm's of travel at the rated dynamic load. This is the load at which 90% of a group of identical ball screws will run without flaking for their lifetime. However, they will travel farther than this at lower limits. These load-life relationships are analogous to the B10 rating common in the ball bearing industry. The relationship of load to life is an inverse cube relation. For example, by reducing the customers load by half would increase the life by eight times. (Conversely doubling the load would decrease life by 1/8). Armed with this information ABSSAC's customer then made every attempt to reduce the load within the design, which after a great deal of design change was finally achieved. The end result was a ball screw assembly with the life expectancy required by the customer.

CAD files on request









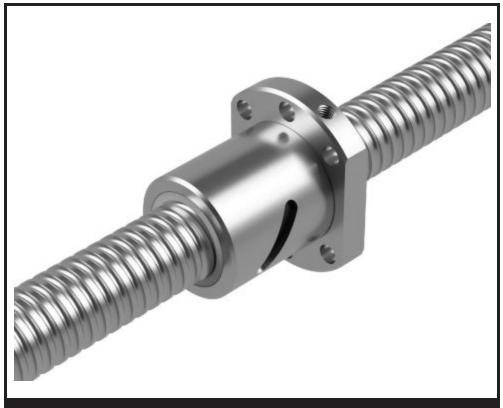
FSH Flanged Ball Screw with End Cap

Available with diameters ranging from 16mm to 63mm, and leads of 16mm to 63mm.



RSB Ball Screw with Mounting Thread

Available with diameters ranging from 12mm to 63mm, and leads of 10mm to 40mm.



FSC Flanged Ball Screw

Available with diameters ranging from 12mm to 80mm, and leads of 10mm to 40mm.



Can we help?

With over 40 years of application experience, our knowledgeable staff are always available. Please contact us on **01386 421 005**

We will be more than happy to help, so please call today!



Standard Sizes

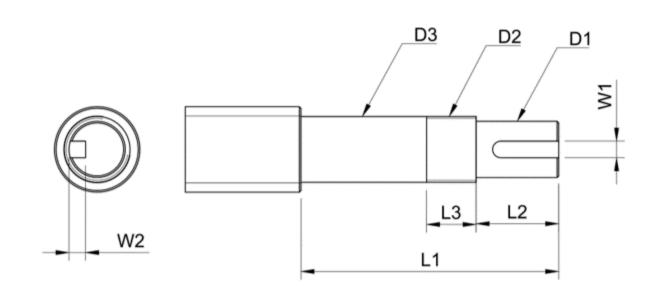
ABSSAC can supply Transport Ball Screws in the following sizes. Ball Screw shaft lengths are available at the maximum lengths listed below

THREA	D DETAILS	NUT TYPE					MAXIMUM SHAFT LENGTH
DIA mm	PITCH mm	FSI	FSR	FSC	FSH	RSB	mm
10	4					/	1000
12	4					/	1200
12	5		/				1000
16	5		/			✓	3000
16	16				✓		3000
20	5		/			✓	3000
20	10			/			3000
20	20				✓		3000
25	5	/	/			✓	4500
25	10	/	/				4500
25	25				✓		4000
32	5	/	/			✓	4500
32	10	/	/			✓	4500
32	20			/			4000
32	32				✓		4500
38	40			/			4500
40	5	/	/				5600
40	10	/	/			✓	5600
40	20	/				✓	5600
40	40			/	✓		4000
50	5	/					5600
50	10	/	/			/	5600
50	40			/			5000
50	50				/		5600
63	10	/	/	/		/	5600
63	20	✓		✓			5600
80	10	/	✓	✓			5600
80	20	/		/			5600



End Journal machining

Our machining capability gives you a high journal concentricity product and can be applied to all screws regardless of diameter. Let us work together to reduce your scrap rates and supply ball solutions that fit your application every time. We can work directly from your dimensional drawings or if they do not exist, why not supply us with a physical sample for us to copy. Although all types of end machine detail can be supplied we offer a very cost effective basic end journal machining that fits our range of **support bearings** (see example diagrams below)



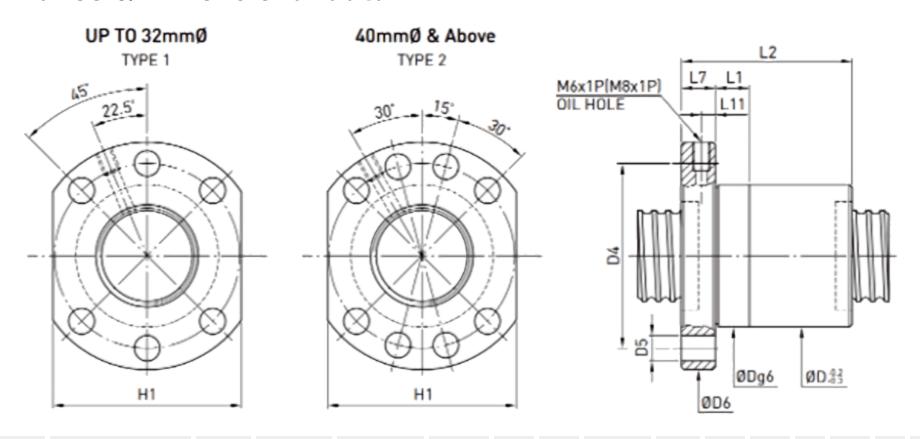
To Suit Bearing Type	Ballscrew Size	D1	D2	D3	L1	L2	L3	W1	W2
BK/FK 10	16	8.0	M10X1.0	10.0	55.0	15.0	12.0	2.0	2.8
BK/FK 12	16/20	10.0	M12X1.0	12.0	39.0	20.0	12.0	3.0	3.2
BK/FK 15	20	12.0	M15X1.0	15.0	67.0	25.0	12.0	4.0	3.5
BK/FK 17	20/25	15.0	M17X1.0	17.0	77.0	23.0	14.0	5.0	4.5
BK/FK 20	25	16.0	M20X1.0	20.0	88.0	34.0	14.0	5.0	5.0
BK/FK 25	32	20.0	M25X1.5	25.0	103.0	39.0	16.0	5.0	7.0
BK/FK 30	40	25.0	M30X1.5	30.0	114.0	46.0	16.0	8.0	8.5
BK/FK 40	50	32.0	M40X1.5	40.0	139.0	55.0	18.0	8.0	12.0



FSI Flanged Ball Screw

Available with diameters ranging from 16mm to 80mm, and leads from 1mm to 20mm.

The FSI flanged ball screw range is aimed at industrial type applications, with dynamic load capacities from 123 to 13449 kgf being catered for. Whatever the load, it will be delivered with both high efficiency and low drive torque. Stocked screw lengths of up to 4500mm are available up to 32mm diameter and screw lengths up to 5600mm long for screws above 40mm in diameter.



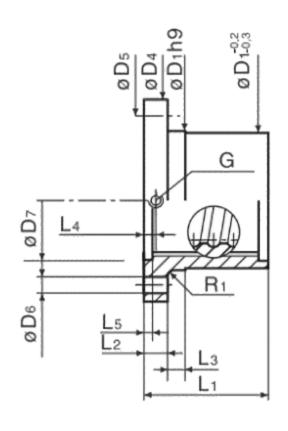
	Size				Dynamic Load	Static			Flange								
Model	Nominal Dia.	Lead	Ball Dia.	Circuits	1x106 revs C (kgf)	Load Co (kgf)	D	D4	Hole No.	D5	D6	H1	L1	L2	L7	L11	M-Oil Hole
R16-1T4-FSI	16	1	8.0	4	123	411	22	31	4	5.5	40	26	10	23	6	-	-
R16-2.5T4-FSI	16	2.5	2	4	409	873	25	35	4	5.5	44	29	10	44	10	5	M6X1
R16-5T3-FSI	16	5	3.175	3	664	1195	28	38	6	5.5	48	40	10	40	10	5	M6x1P
R16-10T3-FSI	16	10	3.175	3	621	1101	28	38	6	5.5	48	40	10	60	10	5	M6X1
R20-5T4-FSI	20	5	3.175	4	938	1993	36	47	6	6.6	58	44	10	52	10	5	M6x1P
R25-5T4-FSI	25	5	3.175	4	1127	2776	40	51	6	6.6	62	48	12	52	10	5	M6x1P
R25-10T3-FSI	23	10	4.763	3	1430	2913	40	51	6	6.6	62	48	16	65	10	5	M6x1P
R32-5T6-FSI	32	5	3.175	6	1829	5544	50	65	6	9	80	62	10	66	12	6	M6x1P
R32-10T4-FSI	32	10	6.35	4	2899	6404	50	65	6	9	80	62	16	85	12	6	M6x1P
R40-5T6-FSI		5	3.175	6	2003	6931	63	78	8	9	93	70	10	66	14	7	M8x1P
R40-10T4-FSI	40	10	6.35	4	3396	8488	63	78	8	9	93	70	16	87	14	7	M8x1P
R40-20T2-FSI		20	6.35	2	1870	4244	63	78	8	9	93	70	20	88	14	7	M8 X1P
R50-5T6-FSI	50	5	3.175	6	2213	8909	75	93	8	11	110	85	10	70	16	8	M8x1P
R50-10T6-FSI	50	10	6.35	6	5526	16668	75	93	8	11	110	85	16	112	16	8	M8x1P
R50-20T4-FSI	50	20	9.525	4	8306	21608	78	93	8	11	110	85	16	150	16	8	M8X1
R63-10T6-FSI	63	10	6.35	6	6192	21409	90	108	8	11	125	95	16	114	18	9	M8 X 1P
R63-20T5-FSI	63	20	9.525	5	11536	35194	90	108	8	11	125	95	16	160	20	10	M8 X 1P
R80-10T6-FSI	90	10	6.35	6	7093	28508	105	125	8	13.5	145	110	20	114	20	10	M8 X 1P
R80-20T5-FSI	80	20	9.525	5	13449	47447	125	145	8	13.5	165	130	25	175	25	12	M8 X 1P

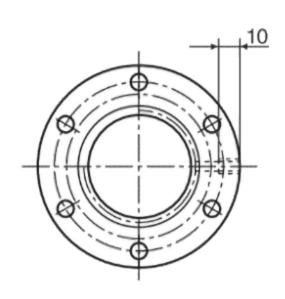


FSR Round Flange Ball Screw

Available with diameters ranging from 16mm to 80mm, and leads of 5mm or 10mm.

The FSR round flanged ball screw range is aimed at industrial type applications, with dynamic load capacities from 265 to 6063 kgf being catered for. Whatever the load, it will be delivered with both high efficiency and low drive torque. Stocked screw lengths of up to 4500mm are available up to 32mm diameter and screw lengths up to 5600mm long for screws above 40mm in diameter.





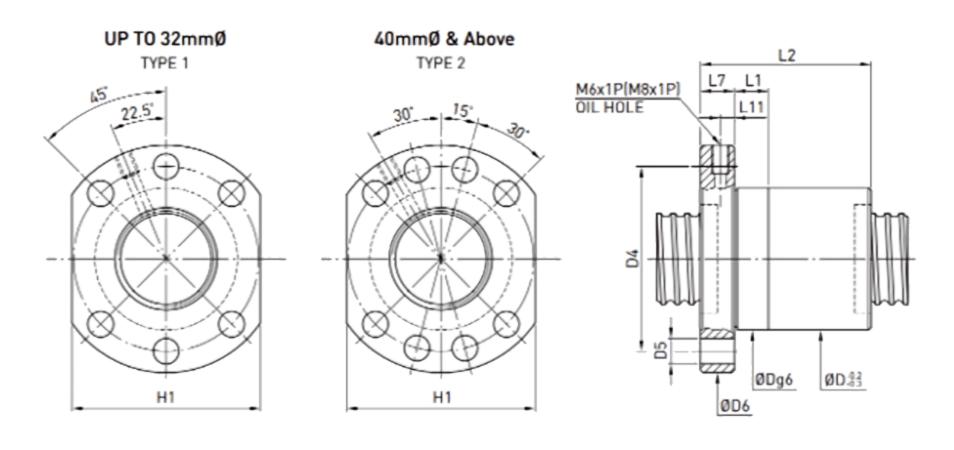
	Size)		Dynamic Load	Static											
Model	Nominal Dia.	Lead	Circuits	1x106 revs C (kgf)	Load Co (kgf)	D1	D4	PCD D5	D6	D7	L1	L2	L3	L4	L5	G
R12-5T3-FSR	12			265	461	20	40	32	5.0	18	36	10	12	6.0	3	M6
R16-5T3-FSR	16	5		664	1195	28	48	38	5.5	22	44	12	10	6.0	3	M6x1
R20-5T3-FSR	20	J		733	1495	32	55	45	7.0	26	44	12	8	6.0	3	M6x1
R25-5T3-FSR	25		3	879	2085	38	62	50	6.6	31	46	14	8	7.0	3	M6x1
R25-10T3-FSR	25	10		1430	2913	45	72	57	6.6	31	65	10	15	5.0	3	M6x1
R32-5T3-FSR	32	5		1008	2772	45	70	58	7.0	38	59	16	10	8.0	3	M6x1
R32-10T3-FSR	32	10		2264	4803	53	80	68	7.0	38	73	16	10	8.0	3	M6x1
R40-5T4-FSR	40	5	4	1414	4621	53	80	68	7.0	46	59	16	10	8.0	3	M8x1
R40-10T4-FSR	40		4	3396	8488	63	95	78	9.0	52	73	15	10	7.5	5	M8x1
R50-10T3-FSR	50	10	3	3045	8334	72	110	90	11.0	62	97	18	16	9.0	5	M8x1
R63-10T5-FSR	63	10	5	5293	17841	85	125	105	11.0	74	99	20	10	10.0	5	M8x1
R80-10T5-FSR	80		3	6063	23757	105	145	125	14.0	93	101	20	10	10.0	5	M8x1



FSC Flanged Ball Screw

Available with diameters ranging from 12mm to 80mm, and leads of 10mm to 40mm.

The FSC flanged ball screw range is aimed at industrial type applications, with dynamic load capacities from 900 to 13620 kgf being catered for. Whatever the load, it will be delivered with both high efficiency and low drive torque. Stocked screw lengths of up to 4500mm are available up to 32mm diameter and screw lengths up to 5600mm long for screws above 40mm in diameter.



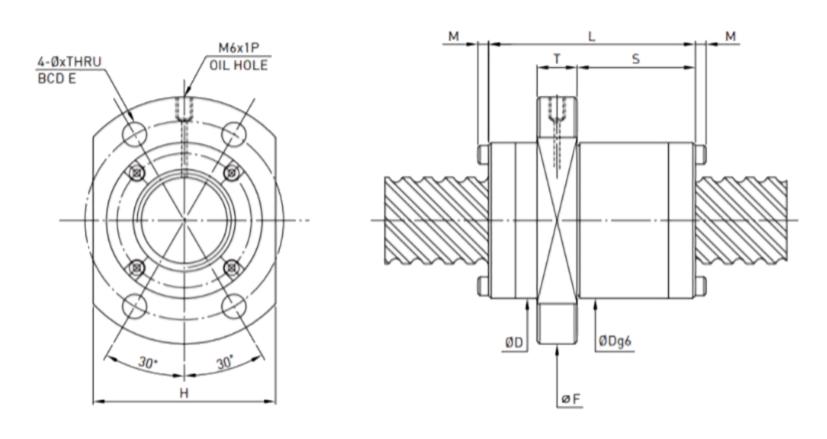
	Size)			Dynamic Load	Static			Flange								M-
Model	Nominal Dia.	Lead	Ball Dia.	Circuits	1x106 revs C (kgf)	Load Co (kgf)	D	D4	Hole No.	D5	D6	H1	L1	L2	L7	L11	Oil Hole
R16-10K3-FSC	16	10	3.184	3	900	1860	34	45	6	6.0	57	43	10	44	10	5	M6x1
R20-10K3-FSC	20	10	3.174	3	991	2268	36	47	6	6.6	58	44	16	48	12	6	M6x1
R20-20K2-FSC	20	20	5.174	2	690	1560	36	47	6	6.6	58	44	10	57	10	5	M6x1
R32-20K3-FSC	32	20		3	3260	7998	62	77	6	9.0	92	74	20	87	12	6	M6x1
R40-10K4-FSC	40	10		4	4660	13120	70	85	8	9.0	100	75	20	73	14	7	M8x1
R40-40K2-FSC	40	40	6.35	2	2344	5953	70	85	8	9.0	100	75	25	102	14	7	M8x1
R50-16K6-FSC	50	16		6	7430	25270	75	93	8	7.0	110	85	25	128	18	9	M8x1
R50-40K3-FSC	30	40		3	3950	12370	82	100	8	7.0	118	92	25	145	16	8	M8x1
R80-20K5-FSC	80	20	9.525	5	13620	51080	145	165	8	9.0	185	150	25	142	25	12.5	M8x1



FSH Flanged Ball Screw with End Cap

Available with diameters ranging from 16mm to 63mm, and leads of 16mm to 63mm.

The FSH flanged ball screw range is aimed at industrial type applications, with dynamic load capacities from 780 to 12000 kgf being catered for. It's multiple start threads make it ideal for applications where quick and precise linear motion is needed Whatever the load, it will be delivered with both high efficiency and low drive torque. Stocked screw lengths of up to 4500mm are available up to 32mm diameter and screw lengths up to 5600mm long for screws above 40mm in diameter.



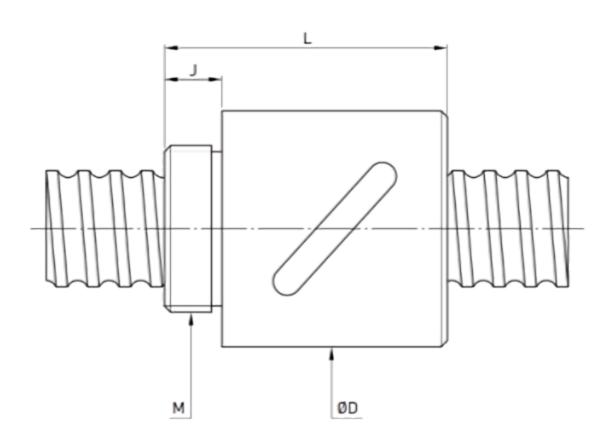
	Size				Dynamic Load	Static	Nut		Flange				Bolt	Fit]
Model	Nominal Dia.	Lead	Ball Dia.	Circuits	1x106 revs C (kgf)	Load Co (kgf)	D	L	F	т	BCD-	н	X	S	M
R16-16S2-FSH-S	16	16		1.8x2	780	1830	32	48	53	10	42	38	4.5	26	0
R16-16S2-FSH	10	10	3.175	1.8x2	780	1830	33	48	58	10	45	38	6.6	26	0
R20-20S2-FSH	20	20		1.8x2	870	2290	38	58	62	10	50	46	5.5	32.5	3
R25-25S2-FSH	25	25	3.969	1.8x4	1300	3600	47	67	74	12	60	56	6.6	39.5	3
R32-32S2-FSH	32	32	4.763	1.8x2	1840	5450	58	85	92	15	74	68	9	48	0
R40-40S2-FSH	40	40	6.35	1.8x2	3030	9220	72	102	114	17	93	84	11	60	0
R50-50S4-FSH	50	50	7.938	1.8x2	7587	22410	90	125	135	20	112	104	14	83.5	0
R63-63S4-FSH	63	63	9.525	1.8x4	12000	45700	110	146	153	24	132	-	13	87	0



RSB Ball Screw with Mounting Thread

Available with diameters ranging from 12mm to 63mm, and leads of 10mm to 40mm.

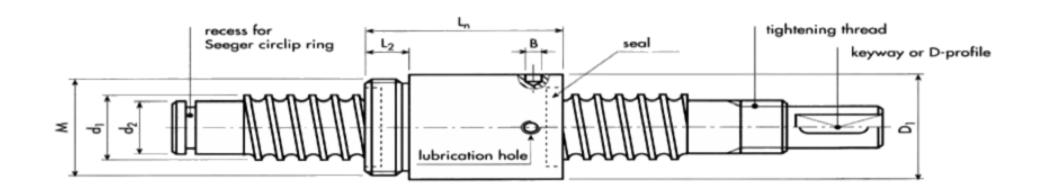
The RSB flanged ball screw range is aimed at industrial type applications, with dynamic load capacities from 344 to 7869 kgf being catered for. Whatever the load, it will be delivered with both high efficiency and low drive torque. Stocked screw lengths of up to 4500mm are available up to 32mm diameter and screw lengths up to 5600mm long for screws above 40mm in diameter.



	Size	Size			Dynamic	Static	N	ut		Mounting
Model	Nominal Dia.	Lead	Ball Dia.	Circuits	Load 1x106 revs C (kgf)	Load Co (kgf)	L	D	Mounting Thread M	Thread Length J
R12-4B1-RSB	12	4	2.381	2.5x1	344	574	34	28	M25x1.5P	10
R16-5B1-RSB	16			2.5x1	679	1226	42	32.5	M26x1.5P	12
R20-5C1-RSB	20	5	3.175	3.5x1	1001	2149	54	40	M36x1.5P	14
R25-5B2-RSB	25	J	3.173	2.5x2	1534	3975	69	46	M42x1.5P	19
R32-5B2-RSB	32			2.5x2	1702	5098	69	54	M50x2P	19
R32-10B2-RSB	32	10	6.35	2.5x2	4379	10345	105	68	M62x2P	19
R40-5B2-RSB	40	5	3.175	2.5x2	1859	6354	69	76	M62x2P	19
R40-10B2-RSB	40			2.5x2	4812	12732	110	76	M70x2P	24
R50-10C2-RSB	50	10	6.35	3.5x2	7146	22477	135	88	M82x2P	29
R63-10C2-RSB	63			3.5x2	7869	28290	135	104	M95x2P	29



THREAD MOUNT, TRANSPORT QUALITY BALLSCREW



type TMR		Dimensions											ates
d ₀ x p Right- hand threads	d ₁	d ₃	D ₁ 0/-0.1 (mm)	M	L ₁	L ₂	i	B +0.5/0 (mm)	S	SA	Т	C Dynamic (N)	C Static (N)
6 x 2	5.7	4.6	16	M12x1	22	8	1x3.5	2.5	-	-	0.06	1700	2300
8 x 2	8	6.5	18	M14x1	24	8	1x3.5	2.5	Ø2	K	0.06	2000	3200
8 x 2.5	8	6.6	17.5	M15x1	24	8	1x3.5	2.5	-	-	0.06	2000	3200
10 x 2	9.7	8.2	19.5	M17x1	22	7	1x3.5	2.5	Ø2	K	0.06	2300	4000
10 x 3	9.9	7.8	21	M18x1	29	9	1x3.5	3	Ø2	K	0.06	2800	5000
10 x 10	9.8	7.9	23	M18x1	35	9	2x1.5	3	Ø4	K	0.06	2500	4500
12 x 4	12	9.8	26	M20x1	34	10	1x3.5	2.5	Ø4	K	0.07	5500	11000
12 x 5	12	9.5	26	M20x1	37	8	1x3.5	3	Ø4	K	0.07	6600	12000
12.7 x 12.7	13.1	10.3	29.5	M25x1.5	50	12	2x1.5	3	M5	В	0.07	8000	15500
14 x 2	14	12.5	26	M25x1.5	32	10	2x2.5	3	Ø2	K	0.06	4500	10000
14 x 4	14	11.5	29	M22x1.5	38	10	1x3.5	3	Ø4	K	0.07	8100	16000
16 x 2	16	14.5	30	M26x1.5	28	12	1x2.5	3.5	Ø2	K	0.06	2500	5500
16 x 5	15.7	13	32	M26x1.5	47	12	1x3.5	4	M5	K	0.07	12000	25000
16 x 10	15.7	13	32	M26x1.5	52	12	1x2.5	4	Ø4	K	0.07	8500	12500
20 x 10	19.5	16.5	38	M35x1.5	58	19	2x2.5	4	Ø4	В	0.07	21000	51000
25 x 10	24.8	21.8	43	M40x1.5	58	19	2x2.5	4	Ø4	В	0.07	21000	54000
25 x 25	24.5	21.2	44	M40x1.5	72	20	2x1.5	4	Ø4	В	0.08	10000	24000
32 x 10	31.6	28.4	52	M48x1.5	62	19	2x1.5	4	Ø4	В	0.07	20000	55000

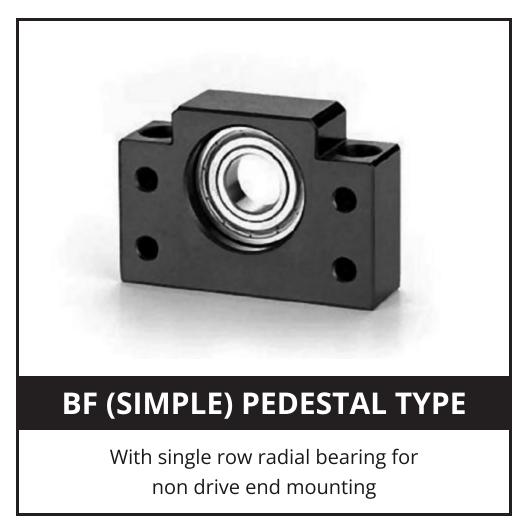


LEAD SCREW & BALL SCREW SUPPORT SYSTEMS

IDEAL COMPANION FOR TRANSPORT LEAD SCREWS AND BALL SCREWS. FIXED TYPES CAN BE USED BOTH ENDS FOR EXTRA LOAD CAPACITY.

ALL TYPES FROM SIZE 10 TO SIZE 40 FROM STOCK.









SCREW ENDS MACHINED TO SUIT THESE AND OTHER BEARING TYPES.

ALL TYPES OF MACHINED SCREW END FEATURES AVAILABLE.

Please enquire for dimensional and performance information.

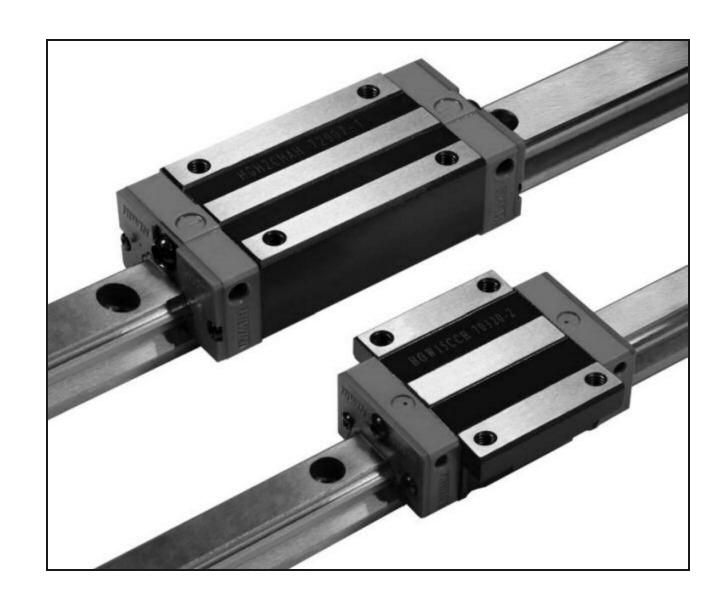


HIGH LOAD FOR COMPACT SIZE

Please enquire for dimensional and performance information.

Width Sizes 15 - 65mm
Single Lengths up to 4000mm
Flange Mount & Sq.Mount with Dust Proofing
4 - Row Bearing Contact for Heavy & Super Heavy
Duty
Zero, Light &mean Pre-Load
Horizontal and Vertical Operation
Ideal Companion to Power Lead
Screws & transport Ball Screws







BALL SCREW APPLICATION DATA FORM (PART 1)

Name		Company			
Address					
Tel	Fax			E-Mail	
OPERATING LOADS					
Normal operating load					Kilo/lbs
Load is in tension	Load is in com	oression		Load is in both	
Load is constant	Load is variable	9			
(If load is variable submit lo	ad curve diagram.)				
Maximum static load in ter	nsion				Kilo/lbs
Maximum static load in co	mpression				Kilo/lbs
Sideloads if any		Overturning	g momen	t (cantilever loads)	
Describe					
DUTY CYCLE					
Continuous operation] Intermittent op	eration		Variable	
Time under dynamic load		Time at rest	•		
Describe operation					
METHOD OF OPERATION					
Screw will be driven		Nut will be o	driven		
The force will be applied to	the nut to rotate th	ne screw (back	k driven s	screw)	
Assembly will be lubricated	d 🔲	Type of lube	5		
Please ask our technical sta	aff for recommenda	tions for the b	est lubri	cant for your appli	cation.
SPEED AND TRAVEL RATE					
Rate of travel described in	inches per minute				
Input RPM at screw or nut					
Amount of torque availabl	e				



BALL SCREW APPLICATION DATA FORM (PART 2)

TRAVEL LENGTH AND SUPPORTS			
What is the unsupported screw length between bearings	5	<u>i</u> '	n/mm
Does the nut travel the full length of the screw		<u>i</u> '	n/mm
If not, over what area does the nut travel			
Is the screw operated in a vertical Horizontal		Other, please state	
What type of end supports are you using?			
LEAD ACCURACY			
Standard accuracy (.015 in per ft max) / 0.3mm per 300m	nm)		
Precision rolled thread accuracy required (0.003 in per ft) / (.07n	nm per 300mm)	
Ground precision accuracy required (.0005 in per ft) / (.0	1mm pe	er 300mm)	
Better than the above required? Please state 0.0mm / 30	0mm		
SCREW SIZE			
Standard backlash OK (up to .007in) / (.1778mm)			
Reduced backlash required (.002 in max) / (.0508mm)			
Zero backlash required			
ENVIRONMENT			
Will operate at normal room temperature		Will operate in very dirty / dusty conditions	
Will operate at very high temperatures		Will operate where metal chips are present	
Will operate at very low temperatures		Will operate in corrosive atmosphere	
STRAIGHTNESS			
Standard straightness OK (.01in per ft) 0.254mm / 300mi	m		
Special straightness required (.002in per ft) 0.0508mm /	300mm		
Straightness better than 0.002in per ft required 0.0508m	ım / 300)mm	
END MACHINING			
If you want to order the screws with the ends already ma submit a sketch or drawing with details and tolerances re			
QUOTATION INFORMATION			
Quantity desired			
Delivery schedule			
Please submit any additional data you feel would be help submitting your quotation. Attach drawings of screw and Suggestions, help and advice is given in good faith but wi	nut if a	vailable. esponsibility. It remains the responsibility of t	
customer or end user to ensure that the product chosen	meets t	heir life, duty cycle and other performance c	riteria.



COPYRIGHT

"ABSSAC" is a registered trade mark 2375859

All rights are reserved.

The use of this catalogue is made available to you by Abssac Limited. The exclusive right to control the use of the copyright and trademarks on this site is controlled by Abssac Limited. These may not be copied, reproduced, published, distributed, modified or otherwise used in any form including electronic copying without the express permission of Abssac Limited. Abssac Limited has made all reasonable endeavor to ensure that the material on this site is accurate. You agree that Abssac Limited, nor any other person involved in creating or providing this catalogue shall be liable for any indirect or consequential damage arising from the use of any information contained in this catalogue.

The information contained in this catalogue is provided 'as is' without warranty of any kind, either expressed or implied. Abssac Limited assumes no responsibility for errors or omissions in this catalogue or other documents which are reference by or linked to this catalogue. This catalogue could include technical or other inaccuracies including typographical errors. Updates and changes are periodically added to the information herein; these changes will be incorporated in new editions of this catalogue. Abssac Limited may make improvements and/or changes in the product(s) or service(s) described in this publication at any time. You agree that the above terms represent the entire basis of the agreement between us, upon which you are permitted to enter this site and you agree that all relations between us are subject to the Law of England and Wales.



STANDARD CONDITIONS OF SALE

- 1. Interpretation
- 1.1 In these Conditions:

"Buyer" means the person who accepts a quotation of the Seller for the sale of the Goods or whose order for the Goods is accepted by the Seller

"Goods" means the goods (including any instalment of the goods or any parts for them) which the Seller is to supply in accordance with these Conditions

"Seller" means ABSSAC LIMITED a company incorporated in England and whose registered number is 1677177.

"Conditions" means the standard terms and conditions of sale set out in this document and (unless the context otherwise requires) includes any special terms and conditions agreed in writing between the Buyer and the Seller

"Contract" means the Contract for the purchase and sale of the Goods

"Writing" includes telex, cable, facsimile transmission, E-Mail and comparable means of communication

- 1.2 Any reference in these Conditions to any provision of a statute shall be construed as a reference to that provision as amended, re-enacted or extended at the relevant time
- 1.3 The headings in these Conditions are for convenience only and shall not affect their interpretation
- 2. Basis of the sale
- 2.1 Subject to Condition 3 below, the Seller shall sell and the Buyer shall purchase the Goods in accordance with any oral or written order of the Buyer which is accepted by the Seller, or any written quotation of the Seller which is accepted by the Buyer, subject to these Conditions which shall govern the Contract to the exclusion of any other terms and conditions subject to which any such quotation is accepted or purported to be accepted, or any such order is made or purported to be made, by the Buyer
- 2.2 No variation, addition or waiver of any of these Conditions shall be effective unless it is in Writing and signed by a duly authorised representative of both the Seller and the Buyer
- 2.3 The Seller's employees or agents are not authorised to make any representations concerning the Goods unless confirmed by the Seller in Writing. In entering into the Contract the Buyer acknowledges that it does not rely on any such representations which are not so confirmed
- 2.4 Samples supplied and advice or recommendations as to storage, application or use of the Goods given by the Seller or its employees or agents to the Buyer or its employees or agents are for guidance only and any such matter which is not confirmed in Writing by the Seller is followed or acted upon entirely at the Buyer's own risk and accordingly the Seller shall not be liable for any such advice or recommendation which is not so confirmed then the Buyer should depend on their accuracy only after obtaining specific written confirmation to that effect from the Seller
- 2.5 Any typographical, clerical or other error or omission in any sales literature, quotation, price list, acceptance of offer, invoice or other document or information issued by the Seller shall be subject to correction without any liability on the part of the Seller
- 3. Quotations and acceptance of orders
- 3.1 Quotations issued by the Seller are invitations to order Goods from the Seller. No Contract will exist until the Seller has accepted the Buyer's order in accordance with condition 3.3.
- 3.2 Subject to condition 3.1 the price in the quotation should be valid for a period of 30 days from the date of the quotation unless otherwise advised by the Seller in Writing
- 3.3 The Seller shall not be bound by any order submitted by the Buyer unless and until confirmed by the Seller in Writing
- 3.4 Scheduled call off purchase orders made by the Buyer with the Seller are for twelve month periods only, or until 19th December ofthat year, depending which comes first unless otherwise agreed in Writing by the Seller
- 3.5 The Buyer is committed to purchasing any remaining amount of products on his purchase order if the Buyer decides to cancel the order mid schedule unless otherwise agreed in Writing by the Seller

- 3.6 No order which has been accepted by the Seller may be cancelled by the Buyer except with the agreement in Writing of the Seller on the terms that the Buyer shall indemnify the Seller in full against all loss (including loss of profit), costs (including the costs of all labour and materials used), damages, charges and expenses incurred by the Seller as a result of cancellation.
- 3.7 Compliance with United States Export Regulations
 It is Abssac's policy to request, if applicable, the end use and
 end user details in all sales and repairs of USA origin products
 and in all transfers of technical data or software to ensure
 compliance with applicable u.s. export control laws and
 regulations. Because the products you are purchasing may be
 used outside of the United States, we will need confirmation of
 the following from the (buyer). It is on the onus of the buyer to
 ensure that Abssac is informed of the following information.
- 1.1 (Buyer) will not export or re-export any USA origin products, technology or software to Cuba, Iran, Iraq, Libya, North Korea, Sudan, or Syria, unless otherwise authorized by the United States Govern ment.
- 2.1 (Buyer) will not sell, transfer, export or re-export any USA origin products for use in activities which involve the development, production, use or stockpiling of nuclear, chemical or biological weapons or missiles, nor use USA origin products in any facilities which are engaged in activities relating to such weapons.
- 3.1 (Buyer) acknowledge that u.s. law prohibits the sale, transfer, export or re-export or other participation in any export transaction involving USA origin products with individuals or companies listed in the u.s. Commerce Department's Table of Denial Orders, the u.s. Treasury Department's list of Specially Designated Nationals or the u.s. Department of State's list of individuals debarred from receiving Munitions List items.
- 4.1 (Buyer) will abide by all applicable u.s. export control laws and regulations for any products purchased from USA origin products, software or technology.
- 5.1 (Buyer) agree that the export control requirements in No. 1-4 above shall survive the completion, early termination, cancellation or expiration of the applicable purchase order, agreement or contract.
- 4. Specifications
- 4.1 The Buyer shall be responsible to the Seller for ensuring the accuracy of the terms of any order (including any applicable specification) submitted by the Buyer, and for giving the Seller any necessary information relating to the Goods within a sufficient time to enable the Seller to perform the Contract in accordance with its terms
- 4.2 The quantity, quality and description of any specification for the Goods shall be those set out in the Seller's quotation (if accepted by the Buyer) or the Buyer's order (if accepted by the Seller)
- 4.3 If Goods are supplied in accordance with the Buyer's specifications the Buyer shall be solely responsible for the specifications and ensuring that they are accurate
- 4.4 If any technical calculations are made by the Seller using information supplied by the Buyer the Buyer accepts that they are responsible for supplying accurate technical information and accordingly the Seller is not liable in respect of calculations based on incorrect information given
- 4.5 If Goods are to be manufactured or any process is to be applied to the Goods by the Seller in accordance with a specification or request submitted by the Buyer or should any change be made to the Goods at the request of the Buyer the Buyer shall indemnify the Seller against all loss damages costs and expenses awarded against or incurred by the Seller in connection with or paid or agreed to be paid by the Seller in settlement of any claims for infringement of any patent, copy right, design, trade mark or other industrial or intellectual property rights of any person which results from the Seller's use of the Buyers specification



- 4.6 The Seller reserves the rights to make any changes in the specification of the Goods which are required to conform with any applicable statutory or EC requirements or, where the Goods are to be supplied to the Seller's specification, which do not materially affect their quality or performance
- 4.7 At all times the buyer has the responsibility to adequately guard and maintain the product supplied in accordance with relevant operation manuals, service factors and health and safety legislation applicable for any product supplied by ABSSAC Limited.
- 4.8 The seller (Abssac Limited) shall not in any event be liable for any consequential damages, secondary charges, expenses for installing or disconnecting, or losses or injuries to persons or property resulting from any alleged defect in the product or any use of the product, and lor in manner that exceeds its design, duty cycle and or ability.
- 4.9 It remains the responsibility of the buyer to test any samples or other products that the seller will provide for fatigue, stress and general ability in the application. All products that the seller provides and are used in both real and test situations are considered by Abssac Ltd to have been thoroughly tested to meet and exceed the anticipated life and duty requirement of the product in its application by the buyer. It remains the responsibility of the buyerto give all technical information to the seller and all buyers are responsible for meeting health and safety measures and adequately guarding users and all associated parties against all and any possible failures in line with the health and safety requirements.

Other Where recommended guidelines of serviceable or replaceable parts and maintenance/inspection requirements are exceeded or ignored by the user and/or buyer, no warranty or other claim can or will exist. Where minimum or maximum values/sizes/limits/dimensions/fitting instructions and technical data of parts are ignored/abused/extended/not applied/not actioned or used in excess ofthe design or standard parameters ofthe product by the user and/or buyer then no warranty claim or other claim can exist.

No warranty or other claim can exist or be made by the user or buyer or other to the seller or its agent or other for any part used in motor sport, military or aviation. No warranty is given to this type of application.

All or any secondary or further

processes/disassembly/machining/ heating/drying/coating or any other additional process the originally supplied product or associated part/product after dispatch from the seller or its agent voids any warranty claim or other claim.

It remains the responsibility of the buyer or user to advise us the seller of any and all certification/test/traceable certification requirement.

Conversations may be recorded as part of our ongoing customer service program.

- **Packaging** 5.
- 5.1 Packaging for the Goods shall be at the discretion of the Seller which has the right to pack the Goods in such a manner and with such materials and in such quantities as in his absolute discretion thinks fit unless detailed packaging instructions are received from the Buyer prior to agreeing a price for the Goods which the Seller agrees to in Writing
- Price of the Goods 6.
- Price of the Goods shall be the Seller's quoted price or, where no 6.1 price has been quoted (or a quoted price is no longer valid) the price listed in the Seller's published price list current at the date of acceptance of this order. Where the Goods are supplied for export from the United Kingdom, the Seller's published export price list shall apply. All prices quoted are valid for 30 days only or until earlier acceptance by the Buyer, after which time they may be altered by the Seller without given giving written notice to the
- 6.2 The price is exclusive of any applicable value added tax, which the Buyer shall be additionally liable to pay to the Seller

- 6.3 All prices stated shall be subject to variation at the sole discretion of the Seller at any time without prior notice and the Seller shall notify the Buyer of any variation before delivery of the Goods
- 7. Payment
- 7.1 Liability for payment for the Goods supplied to customers who have a trading account with the Seller shall arise on delivery and payment in cash is due 30 days from the date of the invoice or as otherwise specifically agreed in Writing by the Seller. Payment shall be due and the company shall be entitled to sue for the price whether or not property in the Goods has passed by virtue of condition 10 and not withstanding the delivery may not have taken place as a result of the Buyer's wrongful or refusal to accept delivery. The time of payment of the price shall be of the essence of the Contract
- 7.2 Liability for payment forthe Goods supplied on a proforma invoice basis for customers who do not have a trading account with the Seller shall be prior to delivery of the Goods. The ti me of payment of the price shall be of the essence of the Contract. It is the Buyer's responsibility to give written notice to the Seller of any payment under proforma invoice arrangements
- Sums paid after the due date shall pay interest until the day 7.3 payment is received at the rate of 5% per annum above the base rate from time to time of National Westminster Bank Pic occurring from day to day from the date of delivery until the date of payment in full
- 7.4 If the recovery of sums outstanding from the Buyer is passed to a debt collection agency the Buyer shall pay the Seller's costs in instructing the said debt collection agency and all ancillary legal costs
- 7.5 Without prejudice to any other rights or remedies of the Seller any in default of the Buyer in making payment on the due date shall entitle the Seller to suspend deliveries under the Contract or any other Contract so long as the default continues and break the Contract as repudiated by the Buyer and determined if the Buyer has not within 14 days of receiving written notice from the Seller paid all sums due to the Seller.
- 8. Delivery
- Delivery shall take place when the Goods are unloaded at or 8.1 delivered to the Buyer's premises or other delivery location agreed between the Seller and the Buyer exceptthat if the Buyer collects or arranges collection of the Goods from the Seller's premises, or nominates a carrier for the Goods delivery shall take place when the Goods are loaded on the collection or carriers vehicle
- 8.2 Any dates quoted for delivery of the Goods are approximate only and the Seller will not be liable for any delay in delivery of the Goods however so caused. Time for delivery shall not be of the essence of the Contract unless previously agreed by the Seller in Writing. The Goods may be delivered by the Seller in advance of the quoted delivery date upon giving responsible notice to the Buyer
- The Buyer shall accept immediate delivery or arrange to collect 8.3 the Goods or arrange suitable storage, failing which the company may either:
- effect delivery by whatever means they think most 8.3.1 appropriate; or
- 8.3.2 arrange storage atthe Buyer's risk and expense pending delivery; or
- 8.3.3 re-sell or otherwise dispose of the Goods without prejudice to any other rights the Seller may have against the Buyer for breach of Contract or otherwise
- 8.4 Where the agreement provides for delivery by instalments each delivery shall constitute a separate Contract and failure by the Seller to deliver any one or more of the instalments in accordance with these Conditions or any claim by the Buyer in respect of any one or more instalments shall not entitle the Buyer to treat the Contract as a whole as repudiated
- 8.5 The Buyershall not be entitled to reject the Goods by reason only of short delivery



- 8.6 The quantity of the Goods delivered under the Contract shall be recorded by the Seller upon dispatch from the Seller's factory or warehouse and the Seller's records shall be accepted by the Buyer as conclusive evidence of the quantity delivered.
- 8.7 It is the Buyer's responsibility to notify the seller if Goods have not been received by the Buyer within seven days of the date of receipt of the Seller's invoice, therefore, if no notification is made the Buyer shall be deemed to have received the Goods.
- 8.8 If the Seller fails to deliver the Goods (or any instalment) for any reason other then any cause beyond the Seller's reasonable control or the Buyer's fault, and the Seller is accordingly liable to the Buyer, the Seller's liability shall be limited to the excess (if any) of the cost to the Buyer (in the cheapest available market) of similar Goods to replace those not delivered over the price of the Goods. The seller is under no obligation or liability in respect of failure to complete or delay or failure to deliver the goods comprised in any order or contract caused directly or indirectly by act of war or terrorism, strikes, lockouts, labour troubles, breakdowns, delays in transport, accidents, delay in obtaining material, fire, government prohibition, delivery of necessary fuel requirements, any and all problems or other restrictions relating to design or other manufacturing difficulties that arise during an
- 8.9 If the Buyer fails to take delivery of the Goods or fails to give the Seller adequate delivery instructions at the time stated for delivery (otherwise than by reason of any cause beyond the Buyer's reasonable control or by reason of the Seller's fault) then, with out prejudice to any other right or remedy available to the Seller, the Seller may:
- 8.9.1 store the Goods until actual delivery and charge the Buyer for the reasonable costs (including insurance) of storage;
- sell the Goods at the best price readily obtainable and (after 8.9.2 deducting all reasonable storage and selling expenses) account to the Buyer for the excess over the price under the Contract or charge the Buyer for any shortfall below the price under the Contract
- Examinations and claims 9.
- 9.1 The Buyer shall upon delivery examine the Goods and shall promptly (but in any event within seven working days of delivery) notify in Writing the Seller and the carrier, where relevant, of any apparent damage defect or shortage.
- 9.2 The Buyer shall comply with the carriers rules, regulations and requirements so as, when appropriate, to the Seller to make a claim against the carrier in respect of any damage or loss in transit.
- 9.3 Claims in respect of damage defects or shortage not apparent on examination and under clause 9.1 must be notified in Writing to the Seller within 7 days of the date of delivery
- Notification under clauses 9.1 to 9.3 above shall be first made by 9.4 telephone then by notice in Writing delivered by facsimile transmission or by first class recorded delivery mail and addressed to Abssac Limited Units 19/20 Bond Industrial Estate Wickhamford Evesham Worcs WRII 7RH.
- 9.5 In default of such notification the seller shall be deemed conclusively to have properly preformed its obligations under the Contract.
- 10. Property and risk
- All risk including that of dam age to or loss of the Goods shall 10.1 pass to the Buyer:
- at the time when the Seller notifies the Buyer that the Goods are 10.1.1 available for collection the case of Goods to be supplied at the Seller's premises or
- at the time of delivery but prior to unloading or if the Buyer 10.1.2 wrongfully fails to take delivery of the Goods at the time when the Seller has tendered to delivery of the Goods in the case of Goods to be supplied otherwise than at the Seller's premises
- 10.1.3 at the time of delivery of the Goods to a carrier for delivery to the Buyer in the case of Goods to be supplied in a manner otherwise than as set out in Conditions 10.1.1 or 10.1.2 above

- 10.2 The Buyer shall fully insure the Goods against all risks from the times stipulated forthe passing of risk in condition 10.1 above up to the time when the proprietary rights in such Goods pass to the Buyer
- 10.3 Property (both legal and beneficial) in the Goods shall remain in the company until all sums owing to the Seller whether under the Contract or any other Contract at any time between the Seller and the Buyer made prior to the date of the Contract ("the Indebtedness) shall have been paid in full, until such time the Buyer shall hold the Goods as bailee for the Seller
- The Buyer shall not be entitled to pledge or in any way charge 10.4 by way of security for any indebtedness any of the Goods which remain the property of the Seller, but if the Buyer does so all moneys owing by the Buyer to the Seller shall (without prejudice to any other right or remedy of the Seller) forthwith become due and payable
- 10.5 The Buyer until otherwise notified by the Seller or on the happening of any of the event specified in Condition 10.7 ("the Events") may in the ordinary course of business sell the Goods and pass property in them ("the Re-Sale") subject to the stipulations ("the Stipulations") imposed in Condition 1 0.5
- The Stipulations are that until the Indebtedness has been fully 10.6
- the Goods shall not be converted into any other product or 10.6.1 mixed with any other Goods to make another product ("the New Product") nor will the Buyer sell the New Product and property in it ("the Sale") but if the Buyer in breach of the above provision does convert or mix the Goods property in the New Product shall atthe earliest moment that such vesting is possible, vest and remain in the Seller whether or not property in the Goods is at the moment extinguished
- 10.6.2 the Re-Sale shall be for the account of the Seller and, unless the Seller by written notice requires the paymentto it of the proceeds of the Re-Sale ("the Proceeds") to the extent of the Indebtedness, in which case the Buyer shall forthwith on receipt of such notice or as soon as thereafter as it shall receive the Proceeds makes its payment, the Buyer shall retain the Proceeds in a separate bank account to the order of the Seller and not mix them with any other monies
- in the event of a breach by the Buyer of its obligations under 10.6.3 additions 10.6.1 the Seller shall have the right to trace the Proceeds in to any other moneys which may have been mixed and the Buyer shall indemnify the Seller on a full indemnity basis against loss, damage, costs or expenses incurred in such
- 10.6.4 until the Re-Sale the Seller has have the right to repossess the Goods or take possession of the New Product at any time and for this purpose shall have the right to enter on to any premises or land in the ownership or possession of the Buyer and remove the Goods and/or the New Product not withstanding that they are affixed to such premises or land and the Buyer shall indemnifythe Seller on a full indemnity basis against all loss, damage, costs or expenses so arising including loss, damage, costs or expenses in respect of third party claims. Such taking of possession re delivery shall be without prejudice in the obligation of the Buyer to purchase Goods
- 10.6.5 the Goods and the New Product shall until their Re-Sale or Sale be stored separately, protected and insured and identified and clearly marked as the Seller's property
- 10.7 The Events are;
- The giving of any notice to the Buyer that a receiver, manager, 10.7.1 administrative receiver, supervisor, nominee or administrator is to be or has been appointed over any of the property or assets of the Buyer or that a petition to wind up the Buyer is to be or has been presented or that an application for an administration order is to be or has been made or any notice of a resolution to wind up the Buyer (say for the purposes of bona fide reconstruction or amalgamation)
- 10.7.2 A decision by the Buyer that the Buyer intends to make any arrangement or composition with its creditors generally.
- Where the Buyer pursuant to section 123 or 268 of the 10.7.3 Insolvency Act 1986 appears to be unable to pay a debt or appears to have no reasonable prospects of being able to pay a debt



- 10.7.4 any distress or execution levied as threatened to be levied on any property or assets of the Buyer
- 10.7.5 the inability of the Buyer to pay its debts as they fall due
- on receipt of notification from the company under Condition 10.5 10.7.6 or on the happening of any of the Events the Buyer shall immediately deliver the Goods and the New Product property in which the Product is reserved to or is vested in the Seller to such address as the Seller shall specify in default of which or in the alternative, the Seller shall have the right to enter on any premises or land in the ownership or possession of the Buyer in order to recover the Goods and the New Product and the Buyer shall indemnify the Seller on a full indemnity basis against all loss, damage, costs or expenses as arising including loss, damage, cost or expenses in respect of third party claims
- Breach by or insolvency by the Buyer 11.
- 11.1 if the Buyer shall not comply with any of its obligations to the Seller or upon the occurrence of any of the Events referred to in clause 10.7 the Seller shall have the right forthwith to terminate the Contract but without affecting any other claim right or remedy of the Seller against the Buyer and without any liability to the Buyer, and if the Goods have been delivered but not paid for the price shall become immediately due and payable notwithstanding any previous agreement or arrangement to the contrary
- 12. **Export Terms**
- 12.1 In these Conditions "Incoterms" mean the international rules for the interpretation of trade terms of the International Chambers of Commerce as in force at the date when the Contract is made. Unless the Context otherwise requires, any term or expression which is defined in or given a particular meaning my the provisions Incoterms shall have the same meaning in these Conditions, but if there is any conflict between the provisions of Incoterms and these Conditions, the latter shall prevail
- Where the Goods are supplied for export from the United 12.2 Kingdom, the provisions of this clause 12 shall (subject to any special terms agreed in Writing between the Buyer and the Seller) apply not withstanding any other provision of these Conditions
- 12.3 The Buyer shall be responsible for complying with any legislation or regulations governing the importation of the Goods in to the country or destination and forthe payment of any duties on them
- 12.4 Unless otherwise agreed in Writing between the Buyer and the Seller, the Goods shall be delivered fob the air or sea port of shipment and the Sellers shall be under no obligation to give notice under section 32(3) of the Sale Of Goods Act 1979
- 12.5 The Buyer shall be responsible for arranging for testing and inspection of the Goods at the Sellers premises before shipment. The Seller shall have no liability for any claim in respect of any defect in the Goods which would be apparent on inspection and which is made after shipment, or in respect of any damage during
- 12.6 Payment of all amounts due to the Seller shall be made by irrevocable letter of credit opened by the Buyer in favour of the Seller and confirmed by a bank acceptable by the Seller, or by telegraphic transfer in to the Sellers aforementioned bank account or if the Seller agrees in Writing on or before acceptance of the Buyer order to waive this requirement, by acceptance by the Buyer and delivery to the Seller of a bill of exchange drawn on the Buyer payable 60 days after sight of the order to the Seller at such branch of National Westminster Bank in England as may be specified in the bill of exchange
- Unless otherwise specifically agreed between the Seller and the 12.7 Buyer all Exports sales shall be made by delivery to the Buyer's premises and the Seller's prices shall be increased to cover the Seller's costs in making such deliveries
- 12.8 The Buyer warrants that if an import licence or permit is required for the importation of the Goods into the county or destination then such import licence or permit has been obtained or would be obtain prior to shipment

- Cancelation, suspension and termination 13.
- 13.1 If the Buyer shall purport to cancel the whole or any part of the Contract the Seller may by notice in Writing to the Buyer elect to treat the Contract as repudiated and the Buyers shall thereupon be liable to pay the Seller by way of liquidated damages a sum equal to all the expenses incurred by the Seller in connection with the Contract including an appropriate amount in respect of administration overheads, costs and loss of profit. The Sellers reasonable estimate of the expenses incurred shall be final and binding on the parties
- If for any cause whatsoever beyond its control the Seller is 13.2 unable to make any delivery on the applicable delivery date or preform any of its obligations under the Contract the Seller may be notice in Writing to the Seller terminate the Contract or suspend the Contract without liability of any loss or damage thereby occurred by the Buyer
- 14. Intellectual property
- 14.1 The Buyer shall not infringe any patent, trade name, registered design, copyright industrial or other intellectual property right belonging to the Seller in relation to the Goods or any other goods or matters supplied by the Seller with or in relation to the Goods
- 14.2 The Buyer shall promptly report to the Seller particulars of any use by any person of a patent, trade name, registered design, trade mark or get up of Goods which might amountto infringement of any patent, trade mark, registered design, copy right, industrial or other intellectual property right attaching to the Goods or to unfair competition on passing off
- 14.3 In the event that it comes to the notice of the Buyer that any person alleges that a patent, trade name, registered design, copy right, industrial or other intellectual property right is invalid or that they infringe any rights of that person or that they are open to any form of attach the Buyer shall not make any omissions but shall promptly report the matter to the Seller
- 14.4 The Seller shall have conduct of all proceedings relating to any patent, trade name, registered design, copy right, industrial or other intellectual property right attaching to the Goods
- 15.
- In so far as the performance of the Contract by the Seller may 15.1 be affected by any strike, any lack of available, shipping or transport or materials, any restriction regulation or decree by any local or municipal authority or government department or by any cause beyond the Seller's reasonable control (which shall be construed without reference to the proceeding causes) the Seller may elect at its absolute discretion either;
- 15.1.1 to terminate the Contract or;
- 15.1.2 to proceed to preform or continue performance under the Contract within a reasonable time after the termination of such events of circumstance
- 15.2 In the event that the Seller makes an election under clause 15.1 the Buyer shall accept the Goods or such part of them as are delivered to it not withstanding any delay
- Exclusion of Contract (rights of the third party) Act 1999 16.
- 16.1 Nothing in these Conditions will confer on any third party any benefit or the right to enforce any terms of these Conditions
- Proper law 17.
- The Contract is and shall be deemed to be made in England 17.1 and shall in all respects be governed by English Law and shall be subject to the non-exclusive jurisdiction of the English Court 18.
- Any notice required or permitted to be given by either party to 18.1 the other under these Conditions shall be in Writing and addressed to that other party at its registered office or principal place of business or such other address as may atthe relevanttime having been notified pursuant to this provision to the party giving the notice



- 18.2 No waiver by the Seller of any breach of the Contract by the Buyer shall be consider as a waiver of any subsequent breach of the same or any other provision
- 18.3 If any provision of these Conditions is held by any competent authority to be invalided or unenforceable in whole or in part the validity of the other provisions of these Conditions and the remainder of the provision in question shall not be affected
- 18.4 No liability, warranty or any other claim can or will exist for any product(s) during or as a consequence of or any consequence whatsoever resulting directly or indirectly from or in connection with any of the following regardless of any other contributory cause or event from :

Terrorism Terrorism is defined as any act or acts including and not limited to the use or threat of force/violence/harm or damage to life or property orthe threat of such harm or damage including harm or damage by nuclear and or chemical and or biological and or radiological means. Caused or occasioned by any persons or groups or so claimed in whole or in part for political religious ideological or similar purposes. Or, any action taken in controlling preventing suppressing or in anyway relating to the above. War War or invasion, act of foreign enemy hostilities of a warlike operation or operations (whether war be declared or not) civil war rebellion revolution insurrection civil commotion assuming the proportions of or amounting to an uprising military or usurped power. Or any action taken in controlling preventing suppressing or in any way relating to any of the above.

18.5 Any dispute arising under or in connection with these Conditions or the sale ofthe Goods shall be referred to arbitration by a single arbitrator appointed by agreement or (in default) nominated on the application of either party by the president forthetime being of the Law Society.

Abssac Limited may make changes to the contents/ improvements and/or changes in the product(s) or service(s) described in this publication at any time.

August 2013.