



KBM_®-18U

INVERTED PORTABLE PLATE EDGE BEVELLING MACHINE

Adjustable bevel head produces bevel angles from 22.5° through 55° Supplied with angle bevel pin for 30° Other bevel angle pins are available upon request.

NOTE: Machine shipped with the 30° bevel pin in place.



Website: www.gullco.com

Distributed by: CANADA - GULLCO INTERNATIONAL LIMITED e-mail: sales@gullco.com Phone: 905-953-4140 Fax: 905-953-4138 U.S.A - GULLCO INTERNATIONAL INC. Phone: 440-439-8333 Fax: 440-439-3634 e-mail: ussales@qullco.com EUROPE - GULLCO INTERNATIONAL (U.K.) LIMITED Phone: +44 1257-253579 Fax: +44 1257-254629 e-mail: uksales@gullco.com AUSTRALIA - GULLCO INTERNATIONAL PTY LIMITED Phone: 61 (0)7 3348 5515 Fax: 61 (0)7 3348 5510 e-mail: ausales@gullco.com INDIA - GULLCO INTERNATIONAL INDIA PVT LIMITED Phone: +91-20-2551-1433 Fax: +91-20-2551-1433 e-mail: indsales@gullco.com CHINA - GULLCO INTERNATIONAL SHANGHAI LIMITED Phone: +8621-50460341 Fax: +8621-50463554 e-mail: c.zhang@gullco.com SINGAPORE - GULLCO INTERNATIONAL LIMITED Phone: +65-9385-4468 e-mail: benny.lim@gullco.com TIN AMERICA - GULLCO INTERNATIONAL LIMITED Phone: 55-11-99485-1336 e-mail: rogerio.macedo@gullco.com GERMAN - Stuch GmbH & Co. KG Scweisstechnik

Revised: May 2, 2018 GD-053

Phone: (02 03) 72 94 95 Fax: (02 03) 72 94 96 e-mail: info@stuch-schweisstechnik.de

READ BEFORE USING THE KBM®-18U BEVELLER

Please refer to the KBM_®-18 Portable Plate Edge Bevelling Machine Parts List & Operating Instructions document (GD-046) for all other information not contained within this supplemental manual, as it contains all of the major wear components used in the KBM_®-18U machine along with similar principles of operational procedure, safety instruction, maintenance etc.

KBM®-18U PLATE EDGE BEVELLING MACHINE DETAILS

This manual (in combination with the KBM_®-18 manual, GD-046) covers the operation instructions, maintenance requirements and provides parts lists for the **Gullco Inverted Plate Edge Bevelling Machine**, part number: **KBM**_®-18U.

DECLARATION OF CONFORMITY - CE - designed and manufactured in compliance with

89/392EEC provisions and further amendments.

MACHINE SPECIFICATIONS

Maximum Bevel Width: 0.71" [18 mm] at standard 30° bevel angle on material with a

tensile strength of 64,000 lb/in² [45 Kg/mm²] (multiple passes)

Maximum Bevel Depth: 0.61" [15.6 mm] at standard 30° bevel angle on material with a

tensile strength of 64,000 lb/in² [45 Kg/mm²] (multiple passes)

Minimum Plate Thickness: 1/4" (6.3 mm)

Maximum Plate Thickness: 1-1/2" (38.1 mm)

Bevel Speed: 13' [4 m] per minute[†]

Motor: 2 H.p., 3 phase, available for 230, 460 and 575 V at 60 Hz. and

also 380 and 400/415 V at 50 Hz. supply

Gearbox Oil: 1.6 US Gallon (6.1 Litres) of Shell Tivela S 320 (See section

"Periodic Inspection & Maintenance" for further details)

Weight: 332 lbs. [151 Kg.] including under carriage assembly

[†] Top speed can vary depending on variations of bevel depth, voltage and frequency.

LIFTING (HOISTING)

The recommended method of lifting (hoisting) the Gullco KBM $_{\odot}$ -18U Inverted Portable Plate Edge Bevelling machine is to use two (2) equal length slings of sufficient capacity (350 lbs [160 Kg] minimum), fed through the machine as shown below. All lifting (hoisting) equipment must be suitably rated and clearly identified to be of adequate capacity. Never raise the machine any higher



INSTALLATION

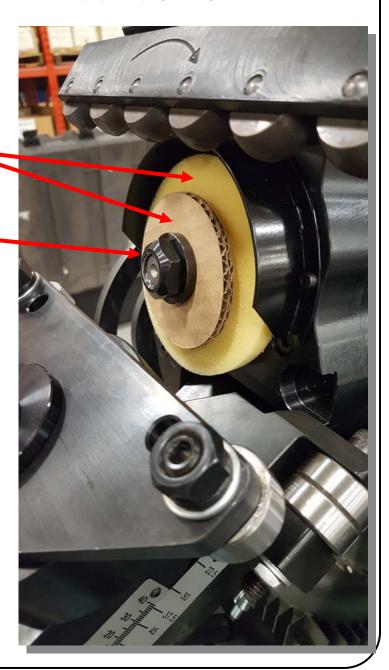
CUTTER INSTALLATION

The cutter on the KBM-18U is not supplied or installed on the machine unless specified. To install, first loosen and remove the cutter nut and washer with a 27mm wrench (not supplied). Then remove and discard the card board and foam spacer that are used to retain the cutter shaft collar during shipping. Install the cutter onto the shaft, do not apply excess force if the cutter does not slide on to the shaft easily, there may be burrs or damage on the cutter if it's been excessively used.

Reinstall the cutter nut & washer, complete the assembly by firmly tightening the cutter nut.

Cardboard and foam spacer, remove and discard.

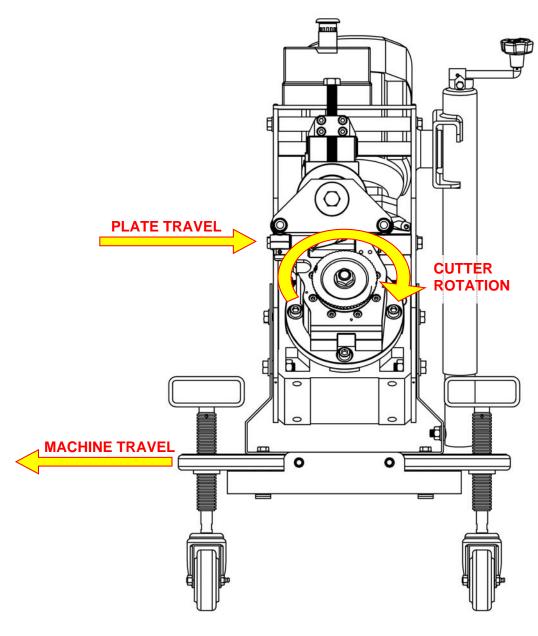
Cutter nut (27mm) and washer.



ELECTRICAL CONNECTION

WARNING!

As shown in the accompanying drawing, the cutter rotation MUST be clockwise (as viewed from the front). IT IS IMPORTANT THAT THIS ROTATION DIRECTION BE CORRECT OTHERWISE DAMAGE TO THE MACHINE MAY OCCUR AND WARRANTY WILL BE VOID. Be certain to check the cutter rotation before operating the machine. The plate should be fed in the direction shown if the machine is static and the material is being manually fed, alternatively, the bevelling machine should travel in the direction shown if the plate is static and the machine is running along the plate. If the cutter rotation is incorrect, it means that the 3 phase AC connection is incorrect and two out of the three Live wires must be swapped.



INSPECTION & MAINTENANCE

FREQUENT INSPECTIONS

IMPORTANT: Due to the inverted operating position of the KBM bevelling machine, contamination from the bevelled plate tends to build-up around the back of the cutter and may eventually work its way into the gearbox bearing causing machine damage, if not regularly cleaned and inspected.

The area around the cutter should be cleaned multiple times during a day of operation. The removal of any rust and/or mill scale from the edge of the plate before bevelling will help reduce build-up, component wear and prolong the life of the machine.

After a week of operation the cutter should be removed and the area behind the cutter cleaned and inspected for wear. The Cutter Felt Insert, the Cutter Shaft Collar and/or the Stop Disc should be replaced if worn or damaged.

It is also recommended that the gearbox's main roller bearing be regularly inspected, cleaned and replaced as necessary.

PERIODIC INSPECTION & MAINTENANCE

IMPORTANT: The gearbox oil must be changed after the first 300 hours of operation (approximately 2 months of single shift usage) and then every 12,500 hours thereafter.

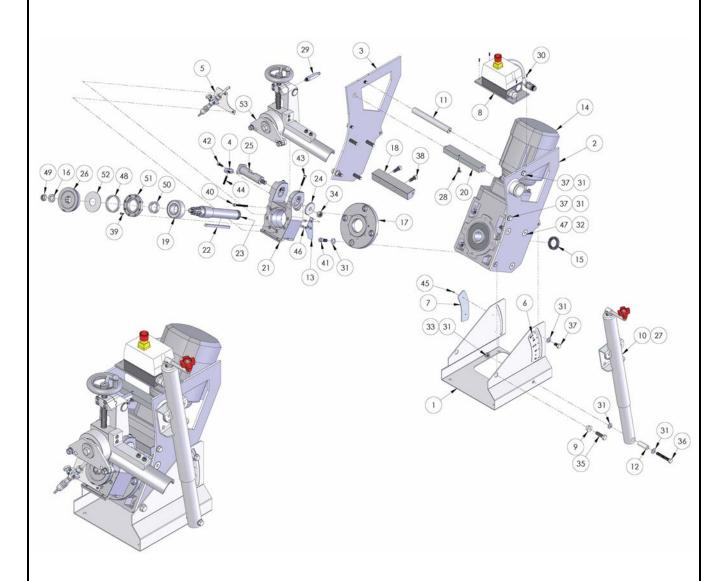
The Gearbox is typically shipped from the factory with "Shell Tivela s 320" - a synthetic, ISO VG 320 oil. When replacing the gearbox oil, refer to the chart below for the best Viscosity Grade (VG) oil to suit the operating environment of the machine. The gearbox requires 1.6 Gallon (US) [6.1 Litres] of oil.

NOTE: Do not mix mineral oils with synthetic oils! If necessary to change from one type of oil to the other, carefully wash the internal parts of the unit using suitable detergents.

32 – 70°F [0 - 20°C]		70 – 104°F [20 - 40°C]	
Mineral Oil ISO VG	Synthetic Oil ISO VG	Mineral Oil ISO VG	Synthetic Oil ISO VG
220	220	460	320

KBM®-18U GENERAL ASSEMBLY BREAKDOWN

Drawing Number: KBM-18U-100



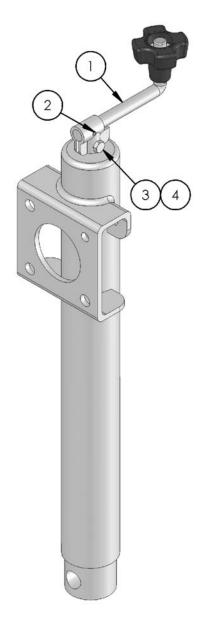
KBM®-18U GENERAL ASSEMBLY BREAKDOWN

Drawing Number: KBM-18U-100

ITEM	PART NO.	DESCRIPTION	QTY.
1	KBM-18U-081	TILTING FRAME	1
2	KBM-18U-034-R	RIGHT BODY SIDE	1
3	KBM-18U-034-L	LEFT BODY SIDE	1
4	KBM-18U-015	SHAFT LIFTING SCREW BLOCK	1
5	KBM-18U-012	AIR JET ASSEMBLY (OPTIONAL)	1
6	KBM-18U-010-R	RIGHT ANGLE PLAQUE	1
7	KBM-18U-010-L	LEFT ANGLE PLAQUE	1
8	KBM-18U-036	STARTER ASSEMBLY	1
9	KBM-18U-005	PIVOT COLLAR	3
10	KBM-18U-004	LIFTING JACK ASSEMBLY	1
11	KBM-18U-003	STIFFENER ROD	1
12	KBM-18U-002	PIVOT PIN	1 1
13	KBM-18-210	CUTTER SHAFT HOUSING WEAR PLATE	1
13			1
14	KBM-18U-120-A	230/460V GEARMOTOR (KBM-18U-A,B,C&D)	1
1.5	KBM-18U-120-B	575V GEARMOTOR (KBM-18U-E)	+ ,
15	KBM-18-111	M40-1.5 SELF LOCKING NUT	1
16	KBM-18-106	CUTTER SHAFT WASHER	1
17	KBM-18-098	GEARBOX MOUNT	1
18	KBM-18-070	MAIN SUPPORT BAR	1
19	KBM-18-05759	MAIN ROLLER BEARING	1
20	KBM-18-055	ANGLE SUPPORT BAR	1
21	KBM-18-035	CUTTER SHAFT HOUSING	1
22	KBM-18-033	CUTTER SHAFT KEY	1
23	KBM-18-032	CUTTER SHAFT	1
24	KBM-18-031	HEAVY DUTY WASHER	1
25	KBM-18-030	ANGLE ALIGNMENT BOLT	1
	KBM-18-X1C	MEDIUM TOOTH CUTTER (SOLD SEPARATELY)	
	KBM-18-X1H	HIGH TENSILE MATERIAL CUTTER (SOLD SEPARATELY)	-
26	KBM-18-X1A	DEEP TOOTH CUTTER (SOLD SEPARATELY)	1
- 1	GBM-18-FXS	FINE TOOTH CUTTER (SOLD SEPARATELY)	7
27	GK119-069	2.5 RETAINING RING	1
28	GK-161-002	WING SCREW M8-1.25 x 15mm	1
20	GBM-18-020-225	22.5 DEGREE ANGLE PIN (OPTIONAL)	
ł	GBM-18-020-300	30 DEGREE ANGLE PIN	-
29	GBM-18-020-375	37.5 DEGREE ANGLE PIN (OPTIONAL)	- 1
-/	GBM-18-020-045	40 DEGREE ANGLE PIN (OPTIONAL)	- '
ł	GBM-18-020-055	55 DEGREE ANGLE PIN (OPTIONAL)	\dashv
20			1
30	GK-112-117	M4-0.7 x 12mm BHCS	4
31	GK-111-095	WASHER 12mm BOLT x 24 OD x 2.5	13
32	GK-109-081	M14-2.0 HEX NUT	8
33	GK-109-072	M12-1.75 HEX NUT	1
34	GK-109-070	M16-2.0 HEX NUT	1
35	GK-108-154	M14-2.0 x 45mm HEX BOLT	2
36	GK-108-149	M12-1.75 x 80mm HEX BOLT	1
37	GK-108-144	M12-1.75 x 20mm HEX BOLT	6
38	GK-107-144	M12-1.75 x 30mm SHCS	2
39	GK-107-140	M5-0.8 x 16mm SHCS	8
40	GK-107-138	M8-1.25 x 90mm SHCS	7
41	GK-107-137	M12-1.75 x 35mm SHCS	4
42	GK-107-124	M8-1.25 x 22mm SHCS	2
43	GK-107-111	M8-1.25 x 40mm SHCS	2
44	GK-106-092	M8-1.25 x 40mm SET SCREW	1
45	GK-105-106	M3-0.5 x 6mm FHSCS	4
46	GK-105-105	M6 x 12mm FHSCS	3
47	GK-105-101	M14 x 50mm FHSCS	6
48	GBM-18-094	CUTTER FELT INSERT	1
49	GBM-18-07786	CUTTER NUT	1
50			1
	GBM-18-076	CUTTER SHAFT COLLAR	
51	GBM-18-031	STOP DISC	INCLUDES (
52	GBM-18-015-B	1.0mm CUTTER SHIM (FOR USE WITH GROUND CUTTER)	OF EACH -
		o s	OI LACIT
52	GBM-18-015-A	0.5mm CUTTER SHIM (FOR USE WITH GROUND CUTTER)	USE AS

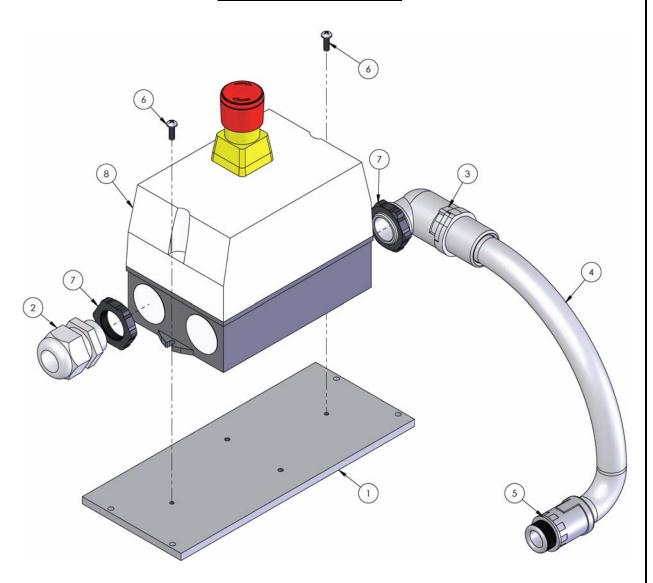
LIFTING JACK ASSEMBLY BREAKDOWN

Drawing Number: KBM-18U-004



ITEM	PART NUMBER	DESCRIPTION	QTY
1	KBM-18U-004-1	JACK HANDLE	1
2	GK-117-033	3/16 x 3/4 SPRING PIN	1
3	GK-108-052	1/4-20UNC x 1 HEX BOLT	1
4	GK-109-050	1/4-20UNC HEX NUT	1

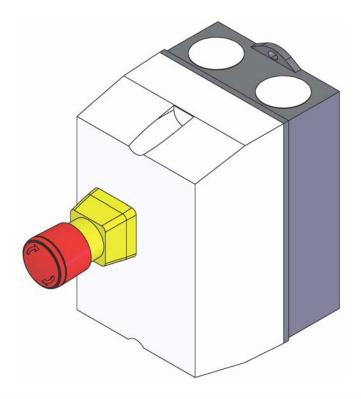
STARTER ASSEMBLY BREAKDOWN



ITEM	PART NO.	DESCRIPTION	QTY.
1	KBM-18U-006	STARTER MOUNTING BRACKET	1
2	GK-148-032	M25 CABLE GLAND	1
3	GK-148-031	M25-1.5MM 90 DEG. CONNECTOR	1
4	RM-114-111	BLACK FLEX TUBE PMA (9")	1
5	GK-148-025	PG16 STRAIGHT CONNECTOR	1
6	GK-112-050	#8-32UNC x 1/2 RND HEAD SCREW	2
7	KBM-28-224	M25 X 1.5 LOCK NUT	2
	KBM-18-215-1	MANUAL STARTER ASSEMBLY (230V)	
8	KBM-18-215-2	MANUAL STARTER ASSEMBLY (380V, 415V & 460V)	1
	KBM-18-215-3	MANUAL STARTER ASSEMBLY (575V)	

MANUAL STARTER ASSEMBLY BREAKDOWN

Drawing Number: KBM-18-215-1/2/3



KBM-18-215-1 (230V)

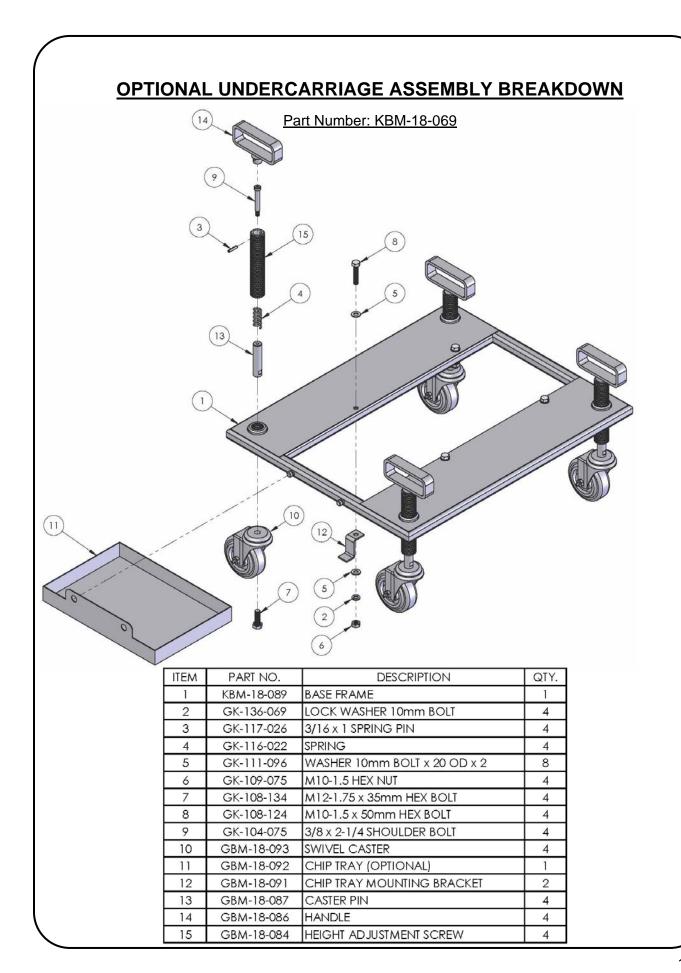
PART NO.	DESCRIPTION	QTY.
KBM-28-215	SURFACE MOUNT ENCLOSURE WITH E-STOP	1
KBM-28-216	manual motor starter 6.3-10a	1
KBM-28-219	UNDERVOLTAGE TRIP RELEASE 230V	1

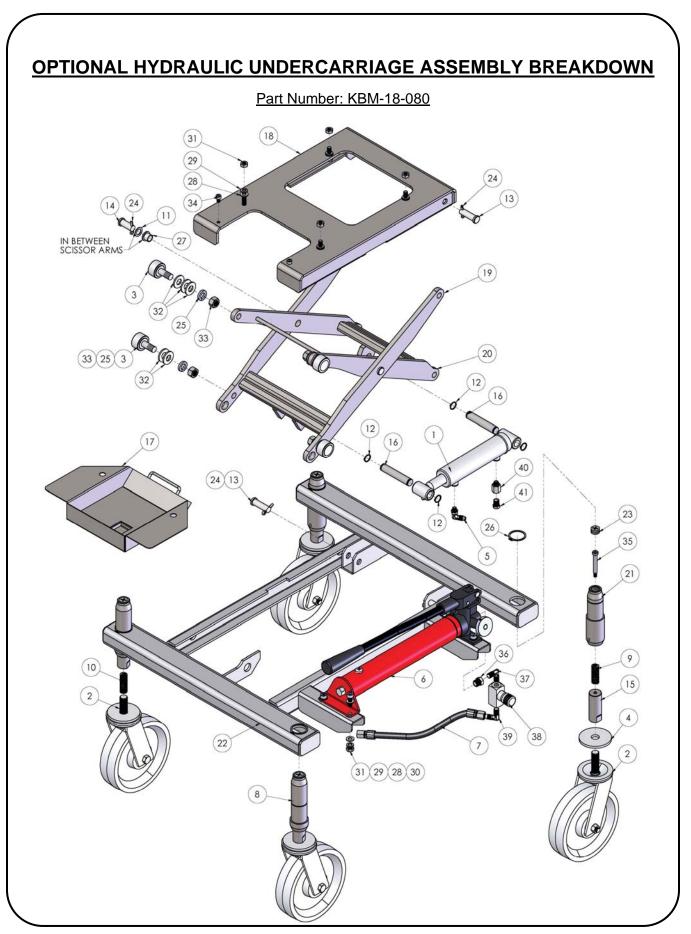
KBM-18-215-2 (380V, 415V & 460V)

PART NO.	DESCRIPTION	QTY.
KBM-28-215	SURFACE MOUNT ENCLOSURE WITH E-STOP	1
KBM-28-217	MANUAL MOTOR STARTER 2.5-4A	1
KBM-28-220	UNDERVOLTAGE TRIP RELEASE 380V TO 460V	1

KBM-18-215-3 (575V)

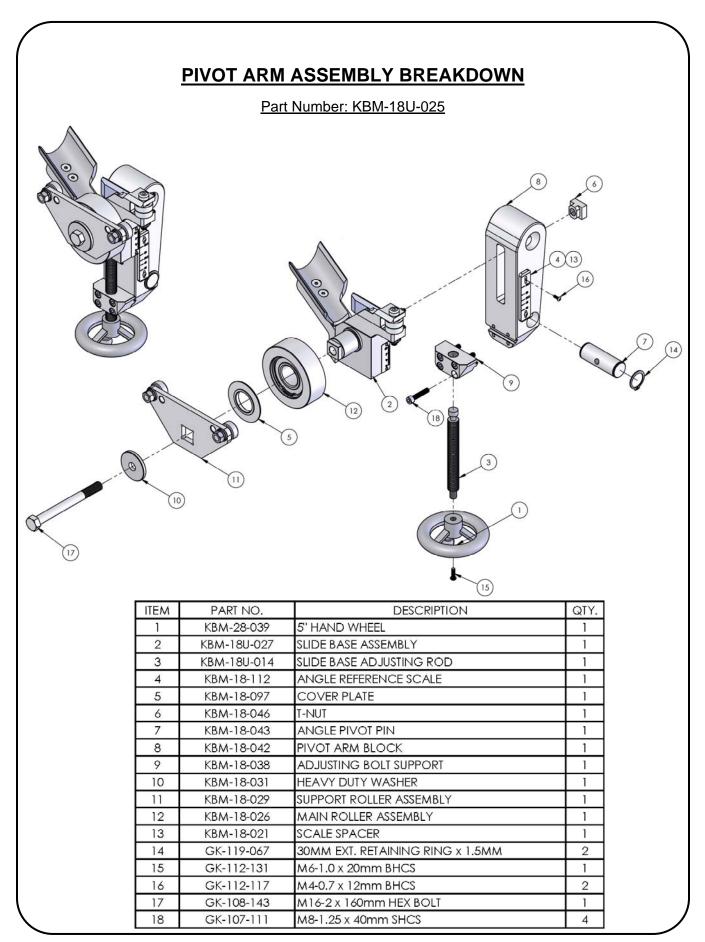
PART NO.	DESCRIPTION	QTY.
KBM-28-215	SURFACE MOUNT ENCLOSURE WITH E-STOP	1
KBM-28-217	MANUAL MOTOR STARTER 2.5-4A	1
KBM-28-221	UNDERVOLTAGE TRIP RELEASE 575V	1



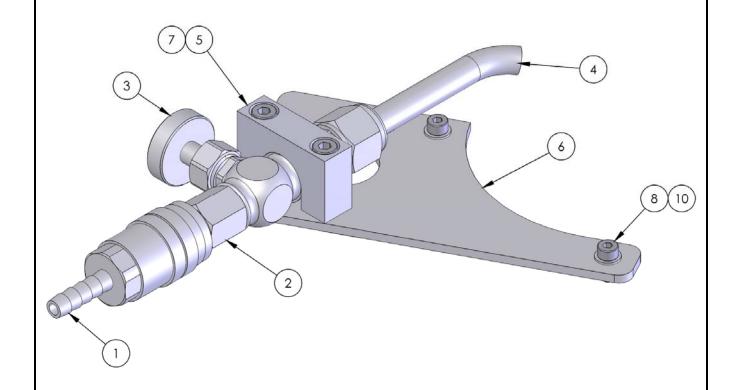


OPTIONAL HYDRAULIC UNDERCARRIAGE ASSEMBLY BREAKDOWN

ITEM	PART NO.	DESCRIPTION	QTY.
1	KBM- 18-173	1.5" BORE X 4" STROKE HYDRAULIC CYLINDER	j
2	KBM-28-116	8" SWIVEL CASTER	4
3	KBM-28-109	CRS-26 CAM FOLLOWER	4
4	KBM-28-091	WHEEL SPACER	4
5	KBM-18-199	90°ELBOW ADAPTER MJIC-6 TO MORB-4	1
6	KBM-18-192	HAND PUMP 3000 PSI	1
7	KBM-18-191	HYDRAULIC HOSE	1
8	KBM-18-1 <i>7</i> 8	FRONT CASTER SUPPORT STRUT	2
9	KBM-18-1 <i>7</i> 5	DIE SPRING - RED	2
10	KBM-18-1 <i>74</i>	DIE SPRING - GOLD	2
11	KBM-18-1 <i>7</i> 2	SHIM RING 5/8" ID X 1" OD X .047" THK	2
12	KBM-18-1 <i>7</i> 1	.75 EXT. RETAINING RING x .042	4
13	KBM-18-1 <i>7</i> 0	5/8 X 1.77 CLEVIS PIN	4
14	KBM-18-169	5/8 X 1.27 CLEVIS PIN	2
15	KBM-18-168	CASTER PIN	4
16	KBM-18-1 <i>67</i>	HYDRAULIC CYLINDER PIN	2
17	KBM-18-166	CHIP TRAY (OPTIONAL)	1
18	KBM-18-165	TABLE TOP	1
19	KBM-18-164	OUTER SCISSOR ARM	1
20	KBM-18-163	INNER SCISSOR ARM	1
21	KBM-18-162	REAR CASTER SUPPORT STRUT	2
22	KBM-18-160	CHASSIS	1
23	GK-171-405	NYLASTIC PLUG	4
24	GK-142-002	COTTER PIN, 1/8 X 3/4	6
25	GK-136-064	LOCK WASHER 5/8 BOLT	4
26	GK-119-068	40MM EXTERNAL RETAINING RING	4
27	GK-118-088	5/8" BRONZ BUSHING	2
28	GK-111-096	WASHER 10mm BOLT x 20 OD x 2	12
29	GK-136-069	LOCK WASHER 10mm BOLT	8
30	GK-107-083	M10-1.5 x 30mm SHCS	4
31	GK-109-075	M10-1.5 HEX NUT	8
32	GK-111-078	BLACK OX. WASHER 5/8 BOLT x 1-3/8 OD x 0.130	10
33	GK-109-085	5/8-18UNF HEX NUT GR.8	4
34	GK-107-122	M8-1.25 x 12mm SHCS	2
35	GK-104-075	3/8 x 2-1/4 SHOULDER BOLT	4
36	KBM-18-197	3/8" NPT TO 1/4" BUSHING ADAPTER	1
37	KBM-28-119	1/4" NPT 90 ELBOW MALE	1
38	KBM-28-108	FLOW CONTROL VALVE	1
39	KBM-28-111	1/4" NPT TO 3/8" TUBE 90 ELBOW MALE	1
40	KBM-18-198	FNPT-4 TO MORB-4 ADAPTOR	1
41	KBM-28-117	1/4" BREATHER PLUG	1

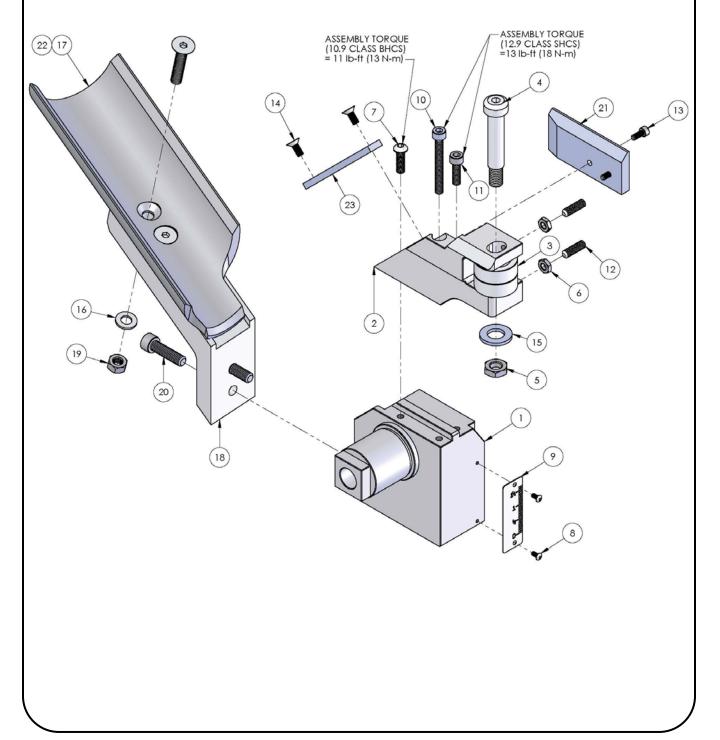


OPTIONAL AIR JET ASSEMBLY BREAKDOWN



ITEM	DADTNO	DECODIDATION	OTV
ITEM	PART NO.	DESCRIPTION	QTY.
1	GF-168-010	QUICK CONNECT COUPLER	1
2	GBM-25-018	QUICK CONNECT PLUG	1
3	GBM-25-017	FLOW VALVE	1
4	KBM-18U-011	FORMED AIR PIPE	1
5	KBM-28U-016	AIR BLOWER MOUNTING CLAMP	1
6	KBM-18U-013	MOUNT PLATE	1
7	GK-107-127	M5-0.8 x 25mm SHCS	2
8	GK-107-139	M4-0.7 x 10mm SHCS	2
10	GK-111-105	WASHER 4mm BOLT x 9 OD x 0.8	2

SLIDE BASE ASSEMBLY BREAKDOWN

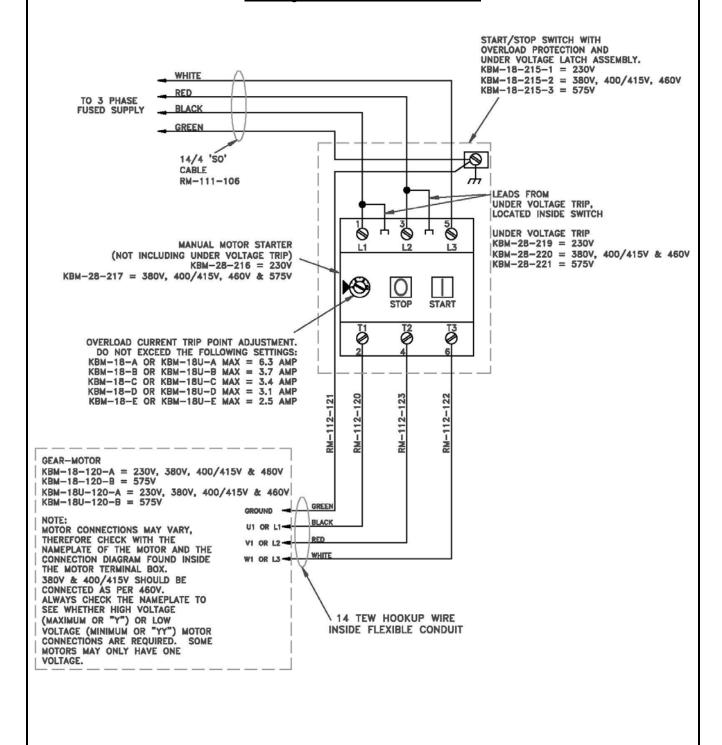


SLIDE BASE ASSEMBLY BREAKDOWN

ITEM	PART NO.	DESCRIPTION	QTY.
1	KBM-18-040	SLIDE BASE	1
2	KBM-18-063	GUIDE ROLLER BRACKET	1
3	KBM-18-064	GUIDE ROLLER	2
4	GK-104-087	12mm x 50mm SHOULDER BOLT	1
5	GK-110-070	M10 x 1.5 HEX HEAD JAM NUT	1
6	GK-110-071	M6 x 1.0 HEX HEAD JAM NUT	2
7	GK-112-131	M6-1.0 x 20mm BHCS	1
8	GK-112-132	M3 x 6mm BHCS	2
9	KBM-18-041	ROOT FACE SCALE	1
10	GK-107-136	M6-1.0 x 50mm SHCS	1
11	GK-107-120	M6-1.0 x 20mm SHCS	1
12	GK-106-086	M6-1.0 x 20mm SET SCREW	2
13	GK-107-139	M4-0.7 x 10mm SHCS	2
14	GK-105-100	M5-0.8 x 12mm FHSCS	2
15	GK-111-095	WASHER 12mm BOLT x 24 OD x 2.5	1
16	GK-111-101	WASHER 8mm BOLT x 16 OD x 1.6	3
1 <i>7</i>	KBM-18U-009	AUXILARY CHIP DEFLECTOR	1
18	KBM-28U-010	MOUNTING BRACKET	1
19	GK-109-064	M8-1.25 HEX NUT	3
20	GK-107-106	M8-1.25 x 30mm SHCS	2
21	KBM-18-056-S	REAR CHIP DEFLECTOR	1
22	GK-105-104	M8 x 40mm FHSCS	2
23	KBM-18-211	SLIDE BASE WEAR PLATE	1

KBM®-18U WIRING SCHEMATIC

Drawing Number: KBM-18-215-SCH



REVISIONS LIST

February, 2006

Overall First release.

August, 2006

Title Page Changed Gullco India's e-mail back to the original. Page 1 Corrected references of GD-047 to GD-046.

Pg 6 7 & 8 Updated & added to reflect new RoHS compliant starter components.

Page 10 Increased thread size of Slide Base Adjusting Bolt & Adjusting Bolt Support.

April, 2007

Title Page Updated Gullco contact details.

Pg 1 & 8 Updated 415 V reference to 400/415 V. Page 4 Added Frequent Inspections section.

Pg 6, 10 & 11 Updated to show new Auxiliary Chip Deflector components.

April, 2008

Pgs 6, 7 & 12 Added details of optional Air Jet Assembly.

May, 2018

Pgs 9, 10 & 18 Updated starter details and part numbers.

ADDITIONAL NOTES

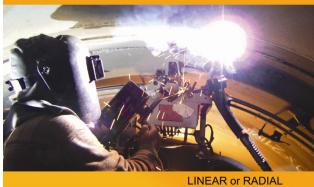
Specifications and products are subject to change without notice.

KAT, Moggy, Sam, KATBAK & KBM are registered trademarks of Gullco International Enterprises Ltd. Only use genuine/authorized replacement parts.



GULLCO





HIGH DEPOSIT RATE QUICK SETUP TIME

KAT. OSCILL

Motorized weld center line adjustment

Motorized stroke width

Oscillation speed control

Store up to 10 welding programs





PORTABLE PLATE EDGE **BEVELLING MACHINE**



Produce clean bevels with no thermal distortion

Bevels angles 22° to 55° (other angles available)

Hydraulic and Adjustable undercarriages available

Bevels Mild Steel, Stainless Steel, and Aluminium

Reduce cost and save time by minimising defects and poor fit up





ONE SIDED WELDING

X-RAY QUALITY BEADS

HIGH DEPOSIT RATE

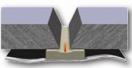
CERAMIC WELD BACKING

Eliminate Defects And Rework

Eliminate Costly Unnecessary Gouging And Grinding

Sizes 1/4" (6.3 mm) to 2" (51 mm)

Special Sizes And Configurations Available









PORTABLE AND COMPACT **INCREASE EFFICIENCY**

MORE ARC ON TIME



Single or Dual Torch Models

Magnet or Non Magnetic Base

Continuous or Stitch Welding Models

Fillet, Lap, Butt and Dual Torch Welding

