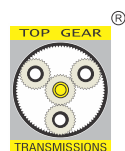
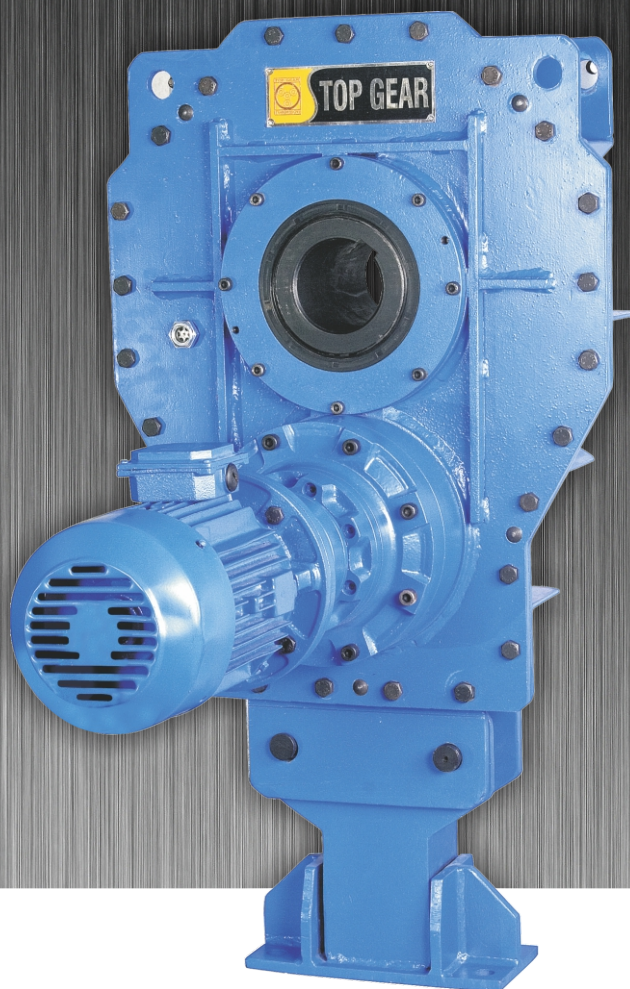


PLANETARY SUGAR DRIVE

Smoother Solutions for a Sweeter Business



TOP GEAR
TRANSMISSIONS

www.topgeartransmission.com



OUR STRENGTHS

- World-class manufacturing practices and quality
- Cost effective solutions for varied applications
- Manufacturing capacity of 2000 products per month
- ISO 9001 certified & crisl SE2B rating company
- Indian successful manufacturer to supply centrifuge gear boxes.
- Indian manufacturer to supply off shore crane gearboxes to ONGC/Reliance/L & T.
- Manufacturing of 1000 HP planetary drive.
- Introduced & implemented range of power saving drives to sugar industry for various applications.
- Introduced steel rolling machinery gear boxes.

It's Crystal Clear

Major sugar giants trust on us for transmission excellence

TOP GEAR PLANETARY GEAR BOXES has proven its ultimate optimization in sugar industry by its unique features for all drives in sugar industry. Top Gear has versatile range of drives for sugar industry starting from cane unloader, feeder table up to sugar bag stackers. The distinct advantages of planetary drive are as.

POWER SAVING

Because of accurate gearing & improved gear geometry, it gives very high efficiency & it insures @ 30% to 75% saving in installed power in various applications.

ADAPTABLE MOUNTING DESIGNS

Top Gear gearboxes are designed in such a way that it does not requires modification in existing equipment most of the designs are shaft mounted where no necessity of coupling & foundations.

LIFE & MAINTENANCE COST

Due to enclosed & fully oil immersed design it ensures uniform lubrication to rotating parts resulting in long life, hence maintenance cost is minimized

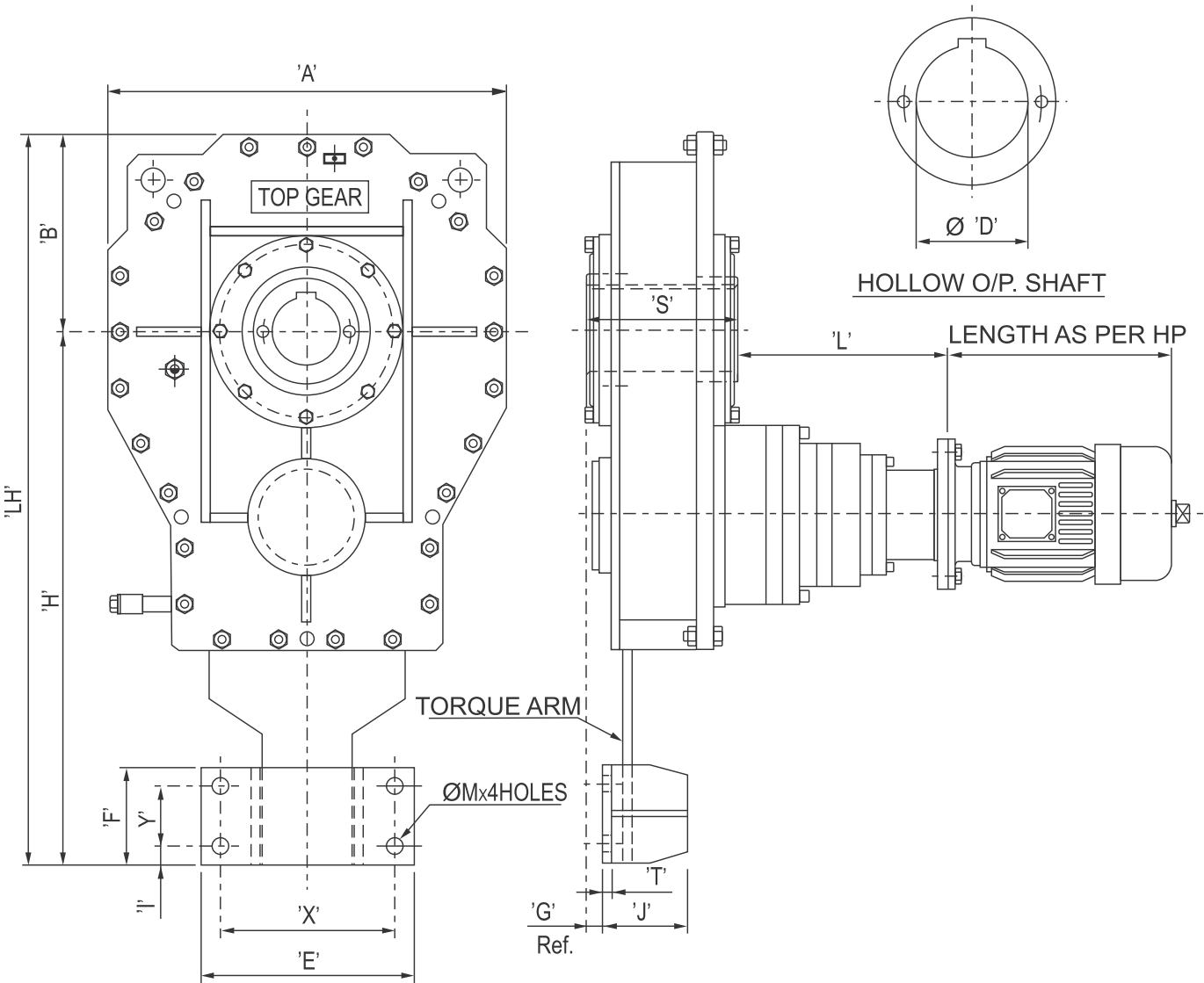
TOP GEAR CRYSTALLISER DRIVES

Top Gear has designed a range of crystalliser models to suit crystalliser capacity from 7.5 ton horizontal crystalliser up to 500 ton vertical crystalliser. The drives are designed in such a way that existing conventional arrangement of worm & worm wheel has to be simply removed & Top Gear drive is to be installed on same shaft. The overall efficiency of Top Gear crystalliser drives is @ 90% and installed motor power ratings selected optimally, considering the starting torque required in between stoppages of crystalliser.

TYPICAL COMPARISON BETWEEN CONVENTIONAL ARRANGEMENT OF WORM DRIVE V/S TOP GEAR DRIVES ARE AS UNDER

	Conventional Arrangement	Top Gear Drives
Power Requirement	Power required up to 30 Kw	Maximum power up to 5.5 Kw
Efficiency	Because of open gearing arrangement & bush bearings, rubbing friction involved hence maximum up to 25%	Very high efficiency 90 % due to rolling friction.
Loads on shafts	Due to generation of tangential & radial loads during worm of worm wheel transmission radial load acts on crystalliser shaft.	Due to shaft mounting construction no radial loads act on crystalliser shaft.
Power Failure	Very difficult to rotate by hand	Due to rear handle on motor shaft one person can rotate very easily
Alignment Problem	Very skilled persons are required to align worm wheel & there is every chance that due to wear in bush of crystalliser worm wheel tends to bend downward & sit on worm shaft. This will add additional loads & result in reduced Life.	Since the entire gear unit is mounted on the crystalliser shaft no skilled alignment is needed.
Maintenance	During off seasons gear units are dismantled & bearing are changed this involves major work & cost.	No maintenance is needed only oil change in season is required

DIMENSIONAL DETAILS OF SHAFT MOUNTED GEAR BOXES

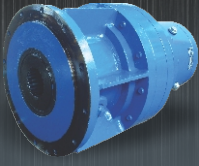


TECHNICAL SPECIFICATIONS

MODEL	'A'	'B'	Ø'D'	'E'	'F'	'G'	'H'	'I'	'J'	'S'	'X'	'Y'	'M'	'T'	'L'	'LH'
200 HCR	460	250	60-100	200	100	30	590	20	70	175	150	60	22	8	269	840
250 HCR	530	265	80-100	280	130	20	715	25	112	200	230	80	22	12	278	978
280 HCR	580	290	90-120	280	130	20	740	25	112	220	230	80	22	12	350	1030
320 HCR	654	330	120-140	280	150	43	885	25	92	240	230	100	22	12	380	1215
350 HCR	700	350	120-150	280	150	30	915	25	92	250	230	100	22	12	380	1265
420 HCR	820	410	160-180	280	150	20	1075	25	92	250	230	100	22	12	441	1485
450 VCR	840	425	180-200	350	185	46	1105	32.5	160	305	290	120	28	16	536	1530
500 VCR	944	475	220-240	400	262	47.5	1265	31	243	340	330	100	28	16	531	1740
525 VCR	944	475	220-240	400	262	47.5	1265	31	248	340	330	100	28	16	531	1740

MOVING AHEAD ON TRANSMISSION SOLUTIONS...

HYDRAULIC DRIVE FOR CANE UNLOADER



- Hydraulic motor driven with hydraulic brake.
- Very high peak loading capacity.
- Torque capacity upto 50,000 Nm.
- Very smooth control on drive for inching movement.

CRYSTALLIZER, RAKE CARRIER, FEEDER TABLE, PUG MILL, MAGMA MIXER



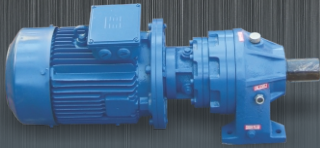
- Planetary shaft mounted in construction.
- No foundation is required.
- Higher efficiency and compact in size.
- Power 1 Kw to 50 Kw.
- Torque upto 350000 Nm.

CANE CARRIER, RAKE ELEVATOR, BAGGASE ELEVATOR, RBC



- Foot mounted in construction.
- Foot mounted motor can be coupled & also suitable for VFD drive.
- Reduction ratio available from 50 to 5000.
- Torque capacity upto 1000000 Nm.

CANE MUD FILTER, LIME SLACKER, SUGAR BUCKET ELEVATOR, ROTARY SCREEN, SUGAR BAG STACKER



- Planetary foot mounted gear motor.
- Reduction ratio 10 to 1200.
- Torque up to 250000 Nm.
- Power 1 Kw to 30 Kw.

LIME TANK, SUGAR MELTER, DILUTER



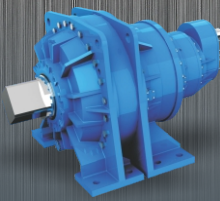
- Vertical downward planetary.
- Hollow input in shaft, flange type motor directly fitted to gear box.
- Reduction ratio 100 to 1200.
- Torque up to 10,000 Nm.
- Power 1 Kw to 30 kw

MAGMA MIXER, MAGMA PUMP



- Foot mounted in construction.
- Reduction ratio 50 to 500.
- Torque up to 1,00,000 Nm.
- Power 3.7 Kw to 50 kw.

MILL DRIVE



- Rigid in construction, cast steel body.
- Roller bearings. Direct reduction possible from 6000 RPM to 4 RPM.
- Output square shaft. Reduction ratio available 214 to 1500.
- Torque up to 4000000 Nm. power 100 Kw to 1000 Kw.
- Provided with heat exchanger & oil pump.

SHAFT MOUNTED DRIVE FOR SUGAR MILL

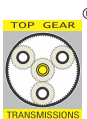


- Shaft mounted with rigid coupling
- Directly mount on shaft
- Ratio available from 150 to 480
- Power 40 Kw to 250 Kw
- Torque up to 1500000 Nm

CANE PUSHER, CANE EQUALISER



- Planetary shrink disc mounting.
- Reduction ratio available from 25 to 1000.
- Torque capacity upto 2,00,000 Nm.
- Power - 15 Kw to 100 Kw.
- Very high efficiency.



TOP GEAR
TRANSMISSIONS

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