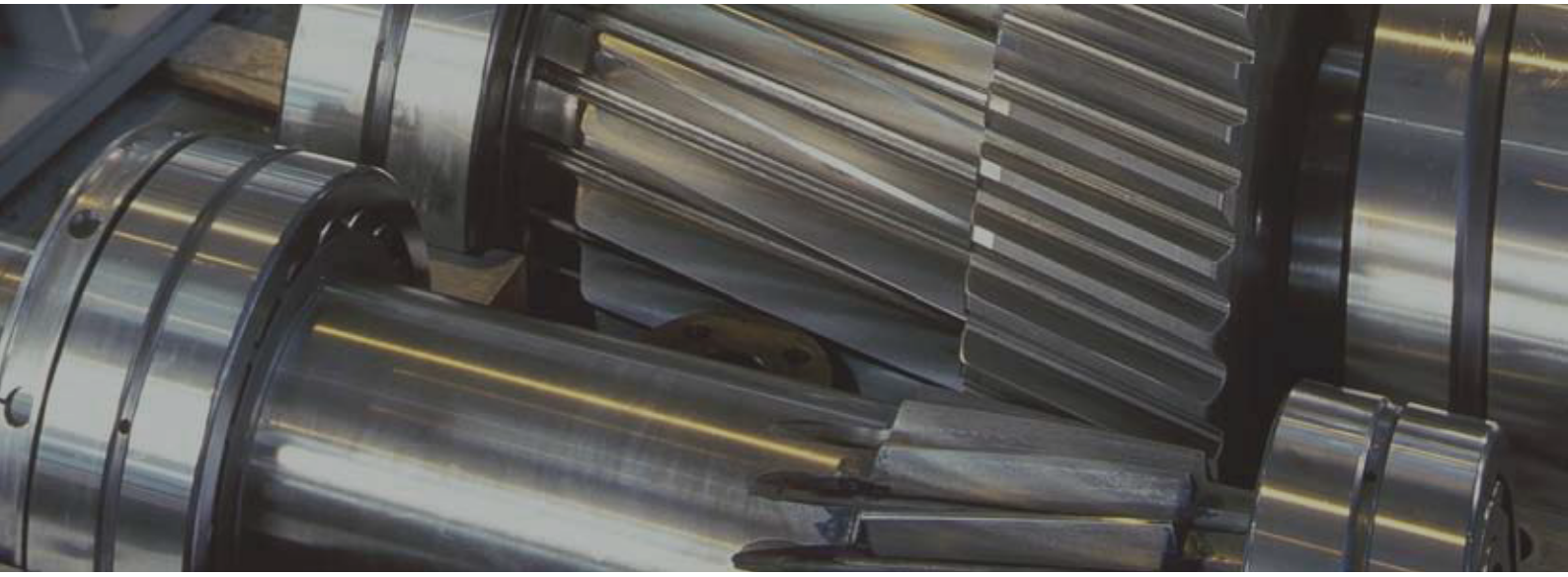
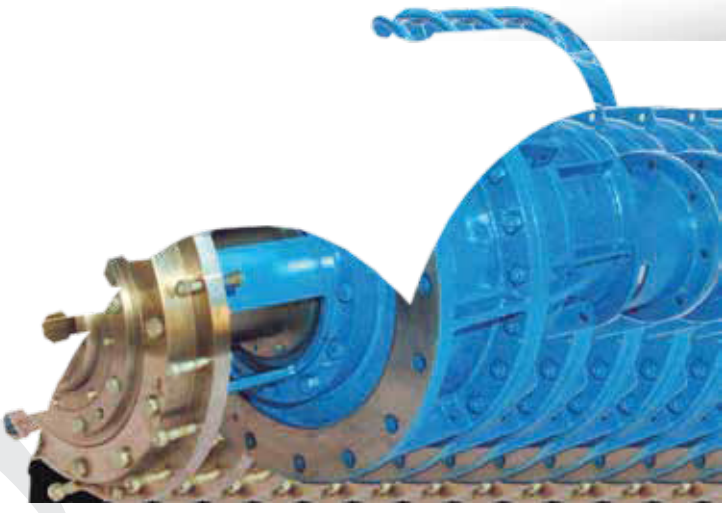
ELECON

Slewing Planetary Gear Units

For Stacker Reclaimers Planetary Gear Units For Bucket Wheel Drive

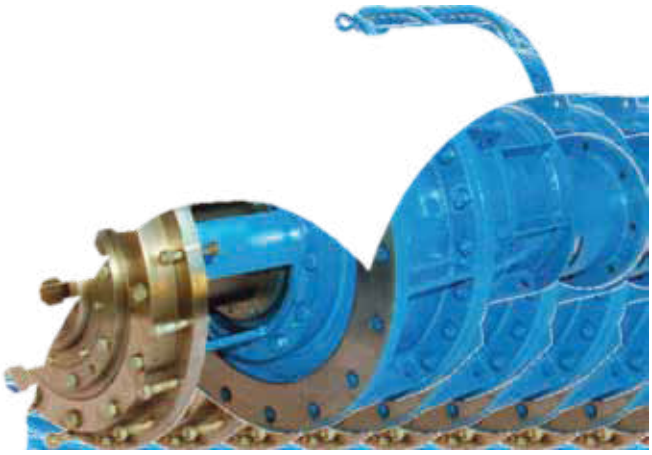




ELECON
GEARING THE FUTURE

www.elecon.com

Elecon slewing gear units of planetary or combination of bevel helical & Planetary type are available in various sizes ranging from 1.5 kW and reduction ratio ranging from 200 to 2500.



These gear units are especially designed for the slewing mechanism of the Stacker-Reclaimer machines.

The planetary gear units normally have four-stage reductions out of which the first stage is designed as helical or bevel pair, and the remaining stages according to planetary gearsystems.

The sun and planet gears arecase-hardened and ground to quality 6 as per DIN 3961/63. The annulus is made up of high tensile alloy steel, heat treated or nitrated depending upon power requirement. The spiral bevel gears are case-hardened and Hard Cut type to ensure optimum tooth contact pattern during assembly. The casing is of welded construction mainly in three parts in case of planetary gear unit. The bearing bores are machined with high degree of accuracy on CNC machines.

Elecon Bucket wheel planetary gear units are available in various sizes ranging from 25 to 375 kw and reduction ratio ranging from 140 to 480.

These gear units are especially designed for bucket wheel drive of stacker-reclaimer machines.

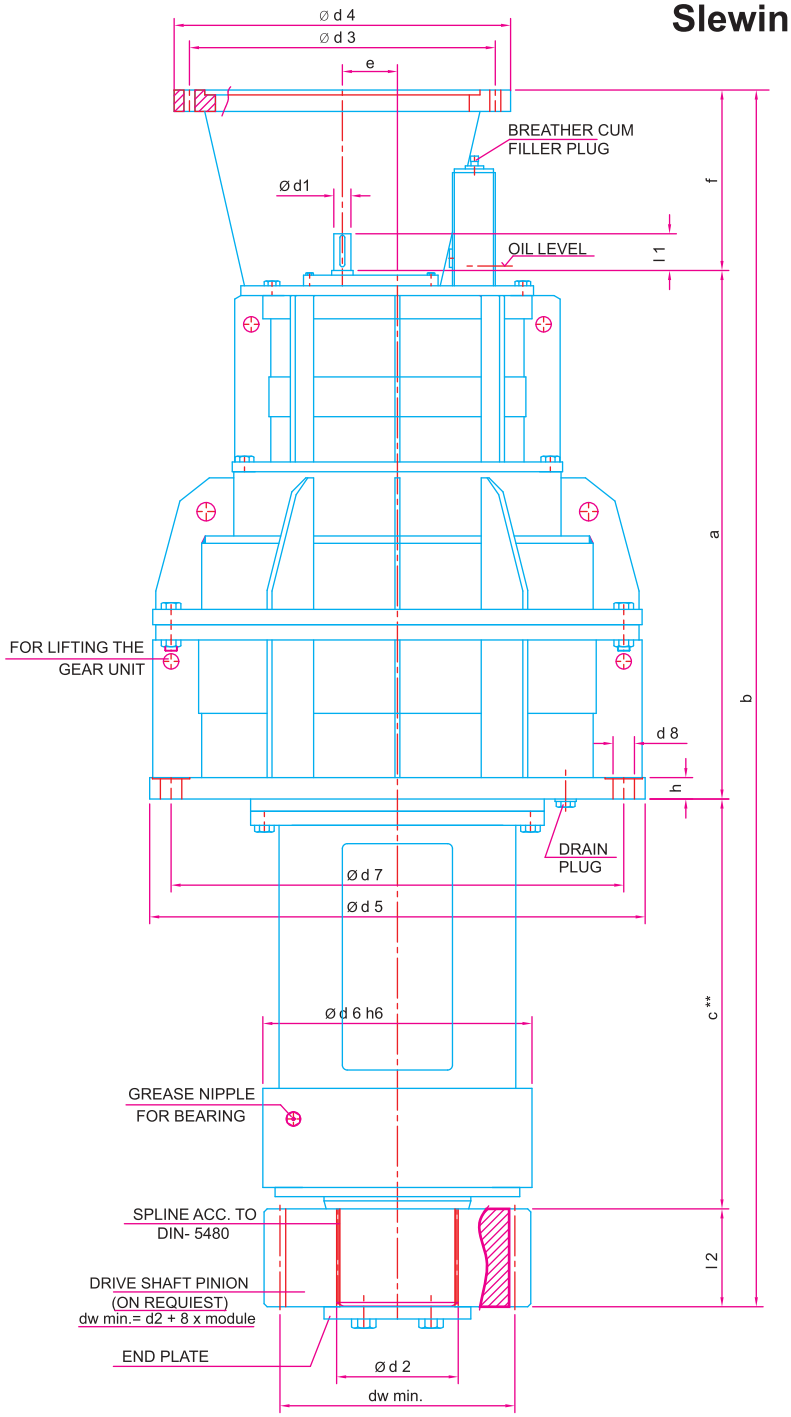
The gear unit consists of Four to Five reduction stages comprising of bevel, helical and planetary being a last pair in the system.

The gear units are available in hollow shaft design with Shrink Disc and have a integral drive frame for mounting electric motor and brake, with necessary fork for fixing the torque arm.

The sun, planet and helical wheels are case hardened and ground to quality 6 as per DIN 3961-63. The annulus is made up of high tensile alloy steel, heat treated or nitrided depending upon power requirement. The spiral bevel gears having cyclopalloid tooth from are case hardened and lapped in pairs so as to ensure optimum tooth contact pattern during assembly.

The casing is of welded construction mainly in two parts made out of Fe 410 WA IS 2062. The bearing bores are machined with high degree of accuracy on CNC machines.

Slewing Gear Box



NOMINAL RATIO
400 TO 1000

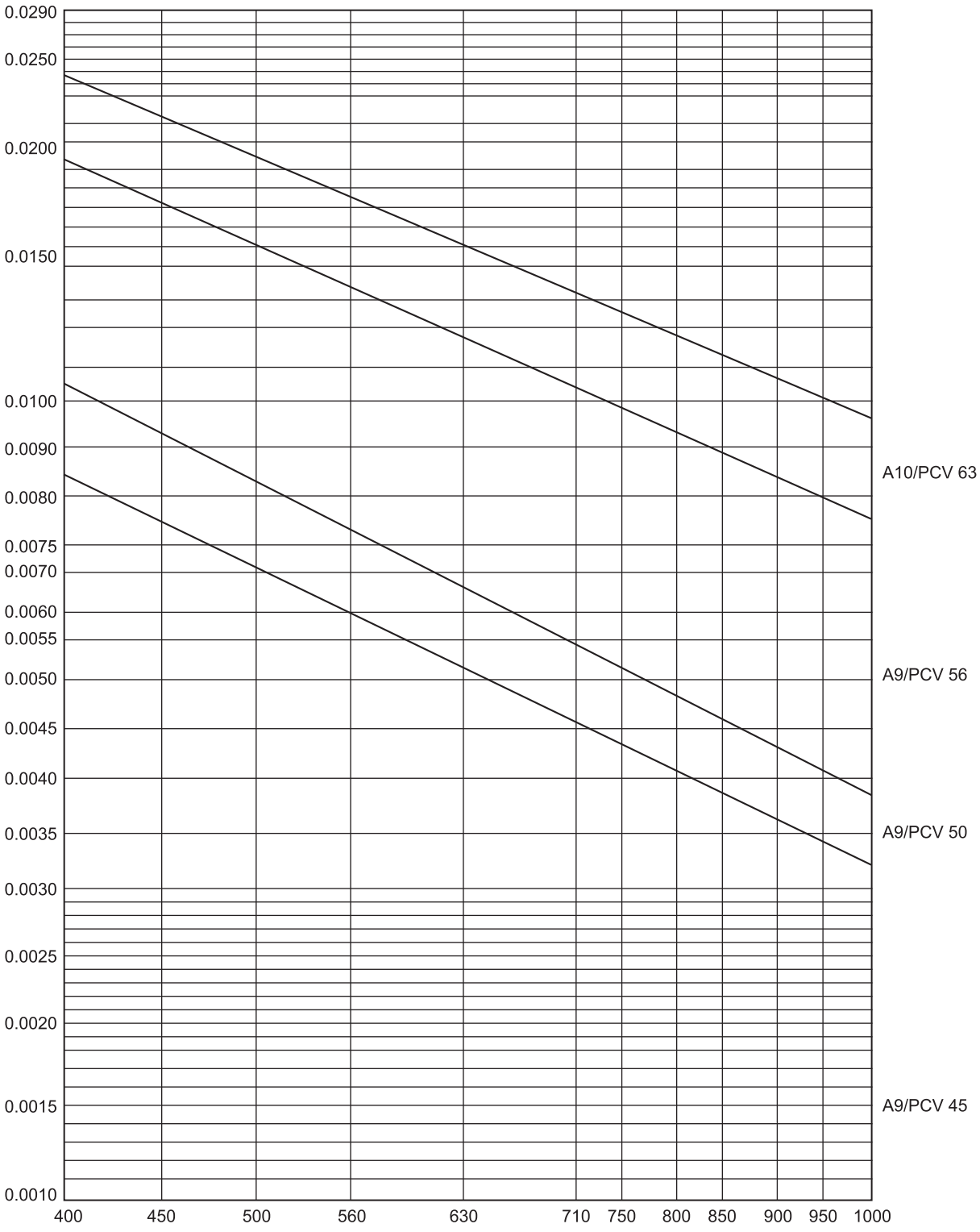
** SPECIAL EXTENSION CAN BE SUPPLIED AS PER CLIENT'S REQUIREMENT.

SHAFT ENDS WITH KEYWAY AS PER DIN 6885, PART-1,FROM-A.
SHAFT CENTRING AS PER DIN 332, FROM-DS. (WITH THREADS)
TOLERANCE FOR SHAFT ENDS : k6 IF d1 < 50 mm.
: m6 IF d1 > 50 mm.

Size						SHAFT ENDS								FLANGE DIMS.				
	a	b	c	e	f	d1	l1	d2	l2	d3	d4	d5	d6	d7	d8	h	NO OFF	Wt.* Kg.
A9/PCV 45	800	1725	625	90	160	25	50	139.0	140	625	625	625	625	625	625	625	625	625
A9/PCV 50	880	1870	670	90	160	28	60	158.8	160	670	670	670	670	670	670	670	670	670
A9/PCV 56	980	2070	730	90	170	28	60	168.8	190	730	730	730	730	730	730	730	730	730
A10/PCV 63	1090	2335	840	100	180	32	60	208.8	225	840	840	840	840	840	840	840	840	840

All dimensions are in mm.
* Weight without oil & drive shaft pinion
** Special Extension can be supplied as per client's requirement
Gear unit of Bevel-Planetary type right angle shaft execution can also be supplied on request.
Please consult us for any such requirement.

Rating Curves for Preliminary Selection of Gear Unit



Gear Ratio ⟶ i = nan / nab

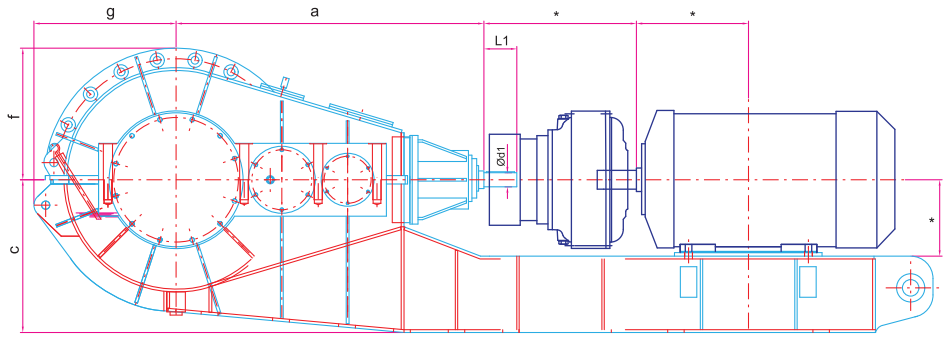
Rating Charts Considering Service Factor = 1.4

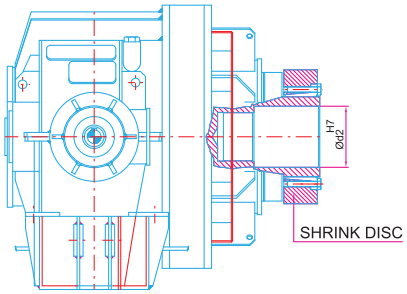
P = Motor power in KW
nan = Motor rpm
nab = Output rpm

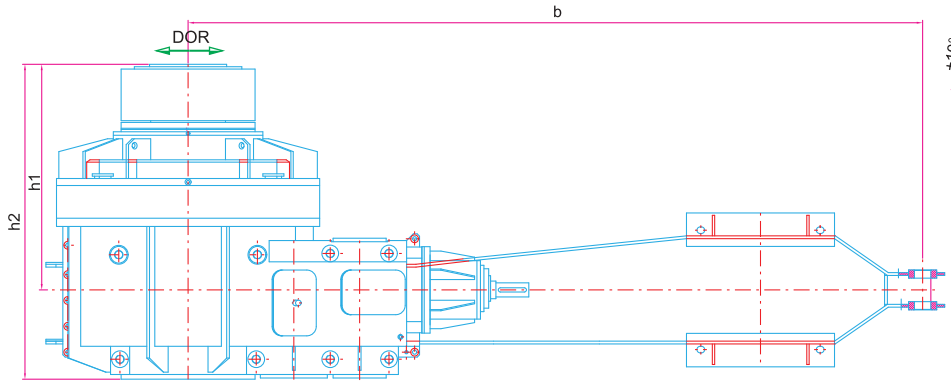
Note : Consult Head office for final size selection of Gear unit giving detailed application data.

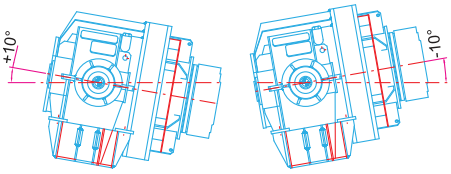
Bucket Wheel Drive Gear Box

K.B.- /PA- Z



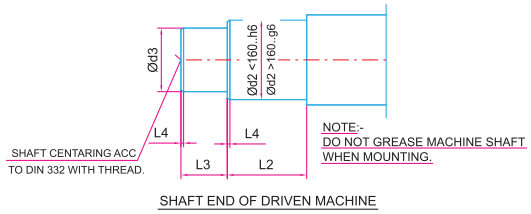






INSTALLATION SITUATION

* ACCORDING TO COUPLING AND
MOTOR DIMENSIONS.
SHAFT AND d1 WITH KEYWAY
AS PER DIN 6885,PART-1,FROM-A.
CENTRING DETAILS AS PER DIN 332, FROM-DS.



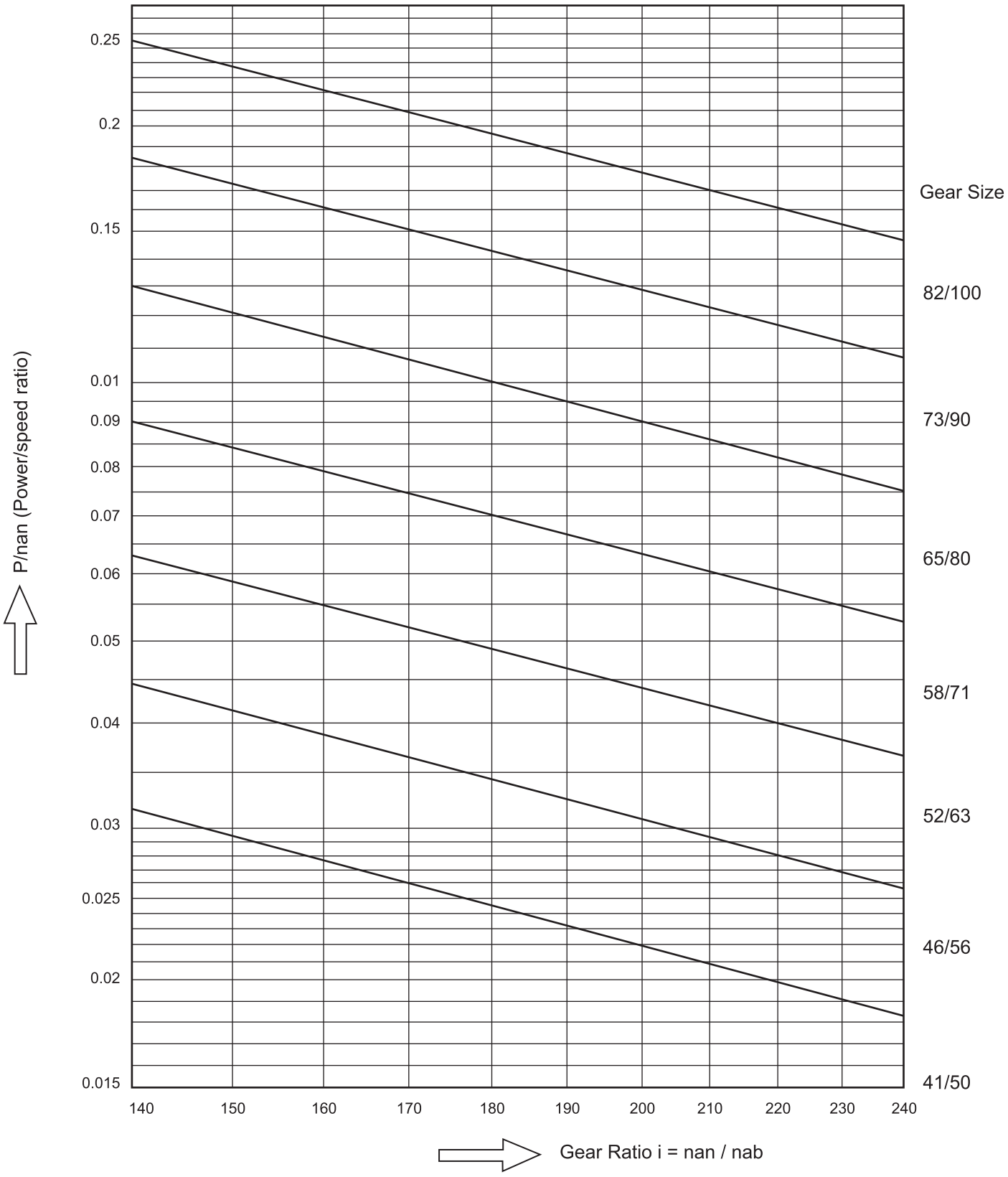
SHAFT END OF DRIVEN MACHINE

SIZE	Dimensions in mm														w.t.**
	a	b***	c	f	g	h1	h2	d1 n6	l1	d2 H7	l2	d3	l3	l4	kg.
KB41/PA50z	840	1980	330	310	350	620	880	37	60	150	150	120	85	5	1200
KB46/PA56z	840	2500	480	350	390	650	921	40	65	165	175	130	95	5	1610
KB52/PA63z	950	2500	480	400	450	755	1056	40	75	190	200	130	110	5	2240
KB58/PA71z	1060	2640	540	450	505	850	1200	52	85	220	240	175	135	10	2850
KB65/PA80z	1180	3050	605	505	555	920	1280	60	95	140	275	190	130	10	3860
KB73/PA90z	1340	3155	650	560	605	960	1340	65	105	260	280	205	140	10	4990
KB82/PA100z	1500	3530	635	600	670	1150	1640	75	120	300	300	240	175	10	7100

Dimensions not binding, Get certified dimension sheet for installation purpose.
** Weight without motor, brake, coupling and shrink disc.
*** Dimension shall change depending upon the size of motor, coupling and brake.

Bucket Wheel Drive

K.B.- /PA- Z

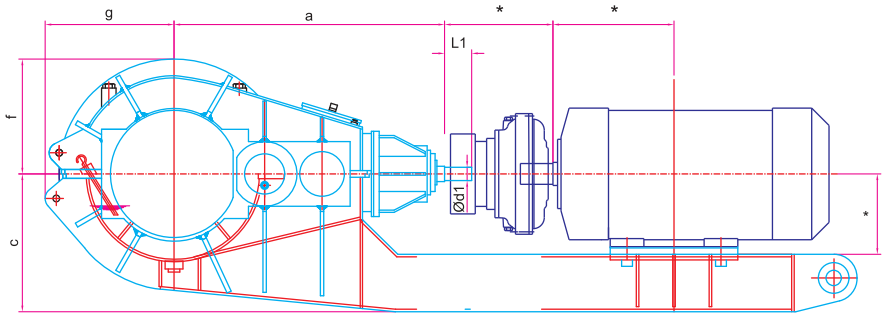


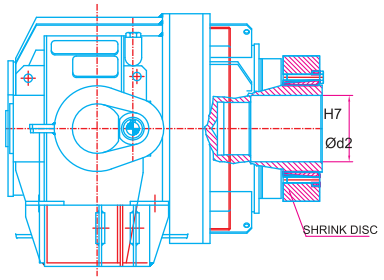
Rating charts considering service factor = 1.5

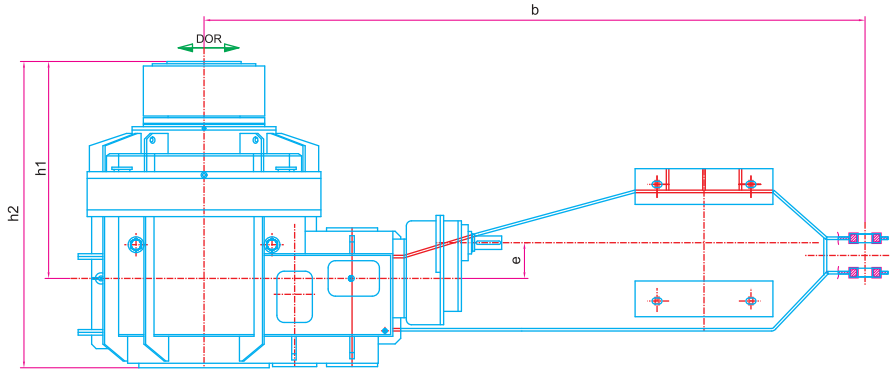
P = Motor Power in kW
nan = Motor rpm
nab = Output rpm

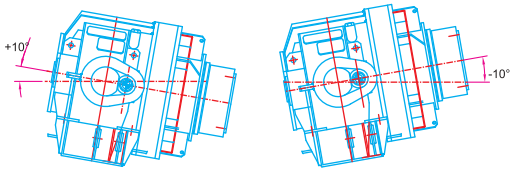
Bucket Wheel Drive Gear Box

A- /KB- /PA- Z









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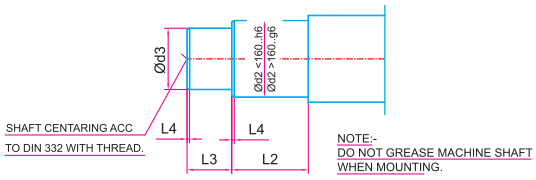

SHAFT END OF DRIVEN MACHINE

SIZE	Dimensions in mm															w.t.**
	a	b***	c	e	f	g	h1	h2	d1 n6	l1	d2 H7	l2	d3	l3	l4	kg.
A11.2/ KB52/PA63z	1000	2500	480	112	400	450	755	1056	38	60	190	200	150	110	5	2270
A12.5/ KB58/PA71z	1120	2640	540	125	450	505	850	1200	43	70	220	240	175	135	10	2890
A14/ KB65/PA80z	1180	3050	605	140	515	555	920	1280	50	80	240	275	190	130	10	3915
A16/ KB73/PA90z	1295	3050	650	160	560	605	960	1340	55	90	260	280	205	147	10	5060
A18/ KB82/PA100z	1545	2508	690	180	612.5	665	1100	1530	60	95	300	320	240	155	10	7200
A20/ KB92/PA112z	1700	4000	740	200	700	785	1350	1820	70	110	340	340	270	200	15	9690

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** Weight without motor, brake, coupling and shrink disc.
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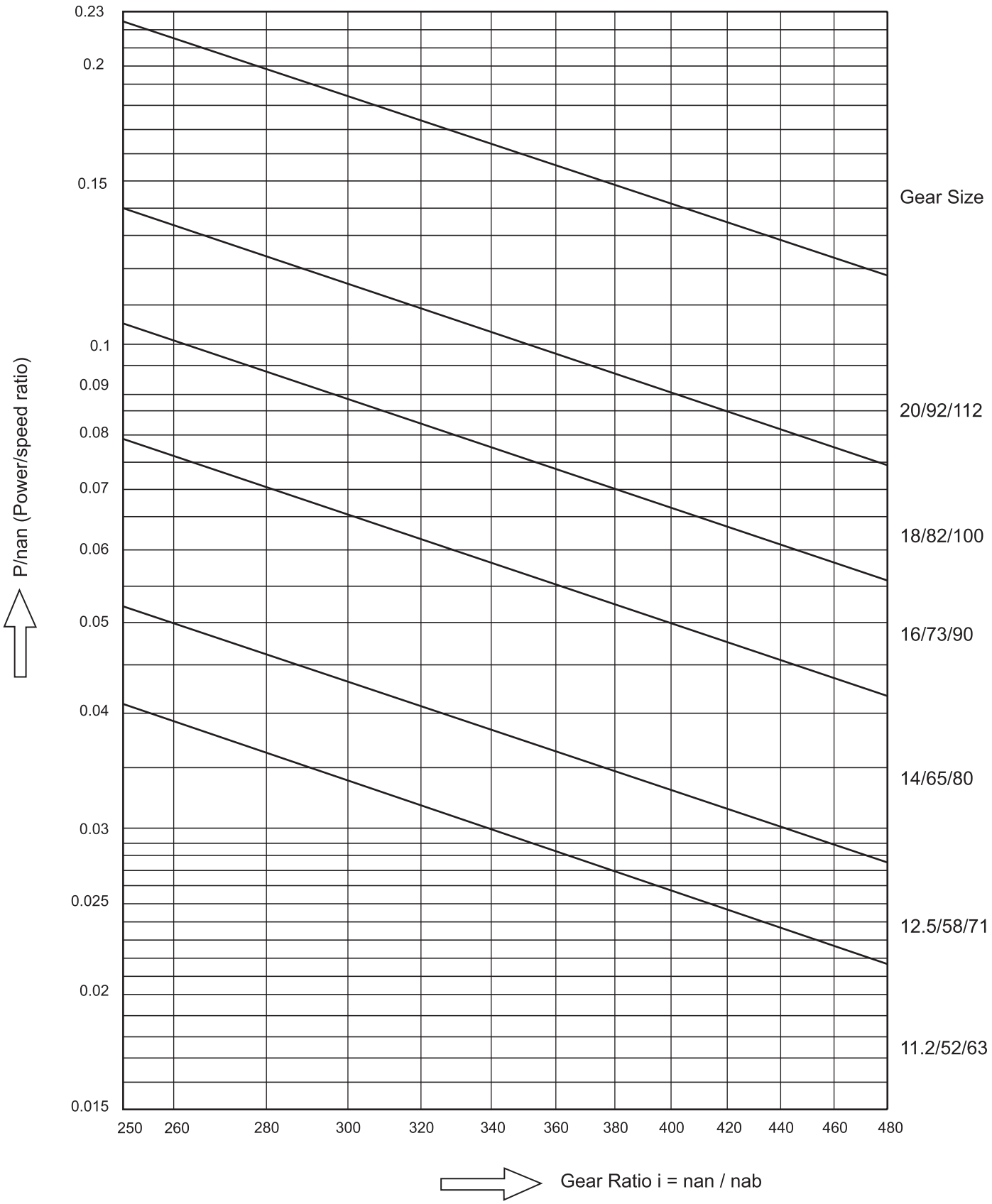
Bucket Wheel Drive

A- /KB- /PA- Z



Rating charts considering service factor = 1.5

P = Motor Power in kW
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GEARS
A MAROC SEALING GROUP COMPANY
92, Lot Maurit ania - Z one Industrielle Bernoussi
Casablanca MAROC 20590
www.msgears.com
msgears@msgears.com
(+212) 05 22 35 41 49/50
(+212) 05 22 35 41 52
(+212) 06 62 14 80 39