

**Sumitomo Drive Technologies**  
*Always on the Move*

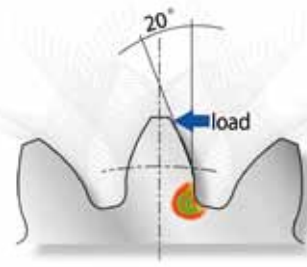
**PARAMAX<sup>®</sup>**  
YHD Series  
For Palm Oil Industry



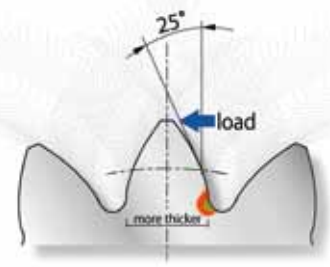
CATALOGUE  
SCA.POM02/2012.05

# PARAMAX<sup>®</sup> YHD Series For Palm Oil Industries

## Features



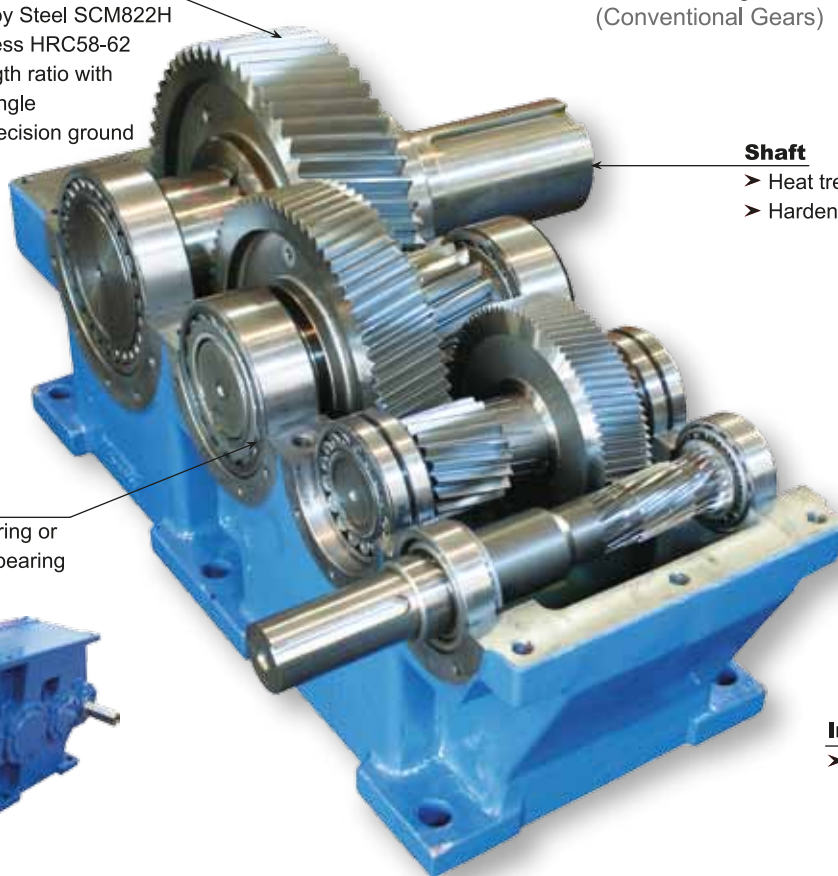
Pressure Angle 20°  
(Conventional Gears)



Pressure Angle 25°  
(Sumitomo PARAMAX<sup>®</sup> Series)

### Gears

- > Carburized Alloy Steel SCM822H
- > Surface hardness HRC58-62
- > Increase strength ratio with 25° pressure angle
- > Hardened & precision ground finish



### Shaft

- > Heat treated alloy steel SCM440H
- > Hardened & ground finish

### Bearings

- > Taper roller bearing or Spherical roller bearing



### Oil gauge

- > Bulls eye oil gauge

### Housing

- > Machined top surface



### Installation

- > Housing designed to facilitate easy installation and removal of fasteners

### SUMITOMO PARAMAX<sup>®</sup> GEARBOXES FEATURES AND BENEFITS

<u>Features</u>	<u>Benefits</u>
AGMA Quality grade 12 gearing	Low noise, Higher capacity & Higher Efficiency
Protuberance hobbing	Eliminates stress concentration
Tip relief and Crowning	Improves contact, reduces noise level.
Pressure angle: 25 degrees	Increases strength
Helix Angle: 14 degrees	Reduces noise level
Vacuum Carburising	Removes impurities, reduces residual stresses
Vacuum degassed alloy steel	Consistent quality, prevents stress concentration due to impurities
Reinforced Cast Iron Housing	For reduced weight and optimum strength
Dual Lip Oil Seals	Prevents oil leaks and water intrusion
Locally stocked	Quick delivery
Local service teams	Prompt service and monitoring

## General Specifications

Application	Model	Ratio	Torque (Nm)	Allowable Radial Load on LSS (N)	Flippable Housing	Contents Page
Kernel Expeller Drive	YHD080P3-LR-55.066	55.066	74,000	140,000	-	3
Screw Press Drive (P15)	YHD060P3SP-RL-55.391	55.391	48,000	60,000	O	4
	YHD060P3SP-RL-78.456	78.456	45,000	60,000	O	4
Screw Press Drive (P20)	YHD080P3SP-RL-76.353	76.353	74,000	140,000	-	5
	YHD070P3SP-RL-77.373	77.373	70,000	87,000	O	6
Digester Drive (3000L)	YVA040P3DG-RL-57.962	57.962	18,000	37,000	-	7
Digester Drive (6000L)	YVD060P3DG-RL-57.328	57.328	32,000	60,000	-	8
Empty Fruit Bunch Press Drive	YHD080P3-LR-55.066	55.066	74,000	140,000	-	9

AMBIENT CONDITIONS	
Ambient Temperature	10deg C ~ 50deg C
Ambient Humidity	Under 85%
Elevation	Less than 1000m above sea level
Atmosphere	Well Ventilated location, free of corrosion and explosive gases, vapor

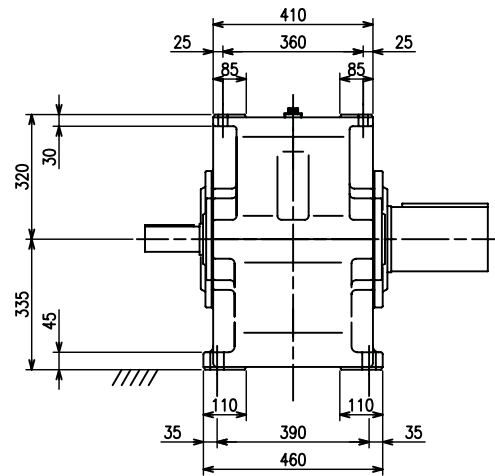
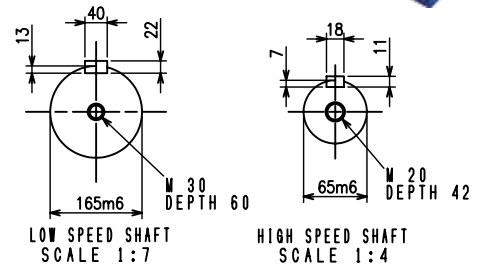
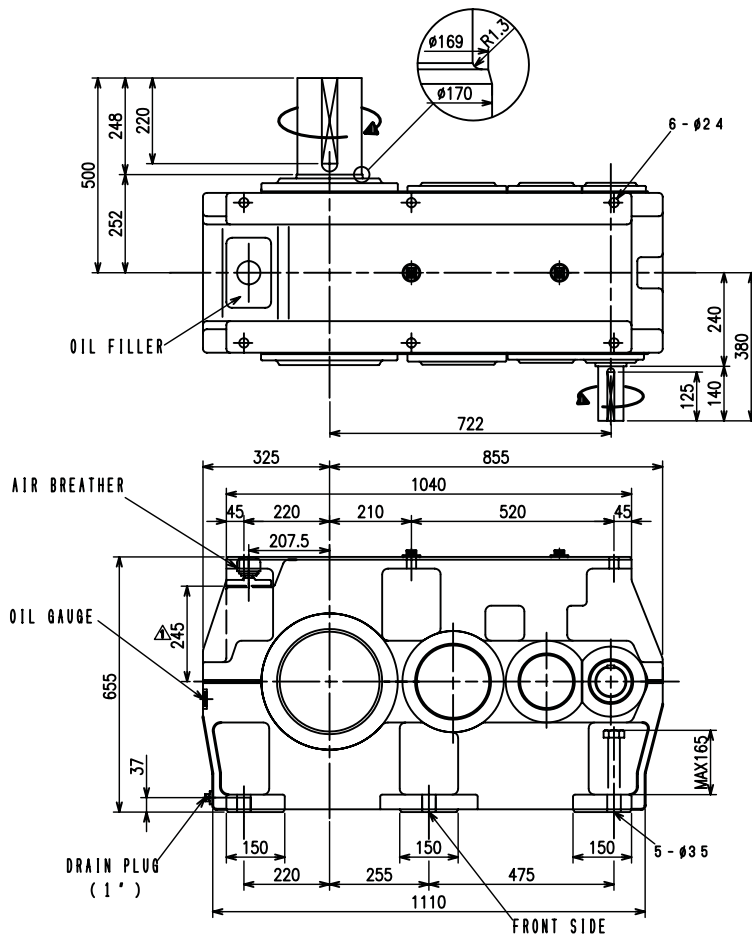
PAINT SPECIFICATIONS	
Surface Preparation	SIS Sa 2 1/2 (Inside & Outside)
Inside Paint	Modified Alkyd Resin Primer (20~40 μm)
Outside Paint	Primer: Modified Alkyd Resin Primer (40~80μm) Finish: Acrylic Alkyd Resin Paint (15~30 μm)
Paint Color	Donau Blue (Musell 6.5PB 3.6/8.2)

TEMPERATURE CORRECTION FACTOR	
Ambient Temperature (deg C)	Correction Factor
20	1
30	0.85
40	0.7
50	0.55

TECHNICAL NOTES
1. Lubrication: Oil Bath: Please use correct Oil Viscosity
2. Temperature correction factor must be used when calculating thermal capacity of the gearbox
3. Please ensure applicable radial load is lower than the Radial Load Capacity
4. All Gear Ratings are based on ISO 6336-1996
5. Key and Keyways are based on JIS B 1301-1996 Parallel key in fastening type (ISO R773-1969 Close Keys)

# Kernel Expeller Drive

YHD080P3-LR-55.066



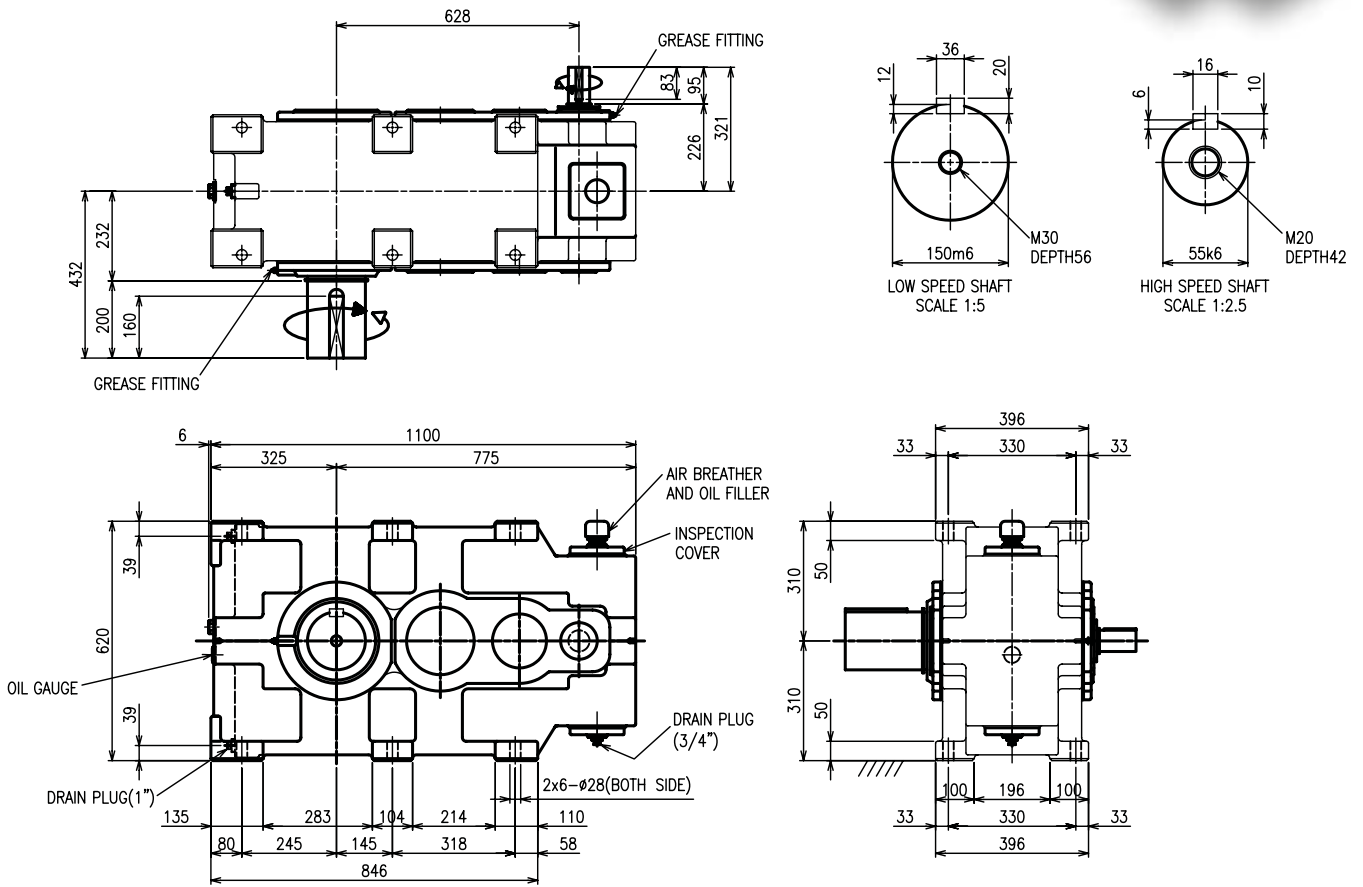
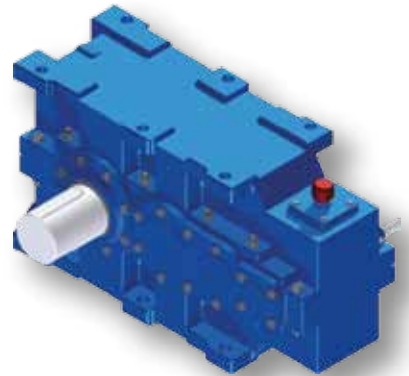
## KERNEL EXPELLER DRIVE REDUCER SPECIFICATIONS

Model	Ratio	Torque Rating Nm	Input Speed rpm	Output Speed rpm	Power Rating kW	Output Shaft dia mm	Input Shaft Dia mm	Weight (Approx) kg	Oil Qty (Approx) l
YHD080P3-LR-55.066	55.066	74000	1000	18.2	140	165	65	1000	65
			900	16.3	126				
			750	13.6	105				

Lubrication System Oil Bath  
Lubricant ISO VG220 AGMA 7EP

# Screw Press Drive P15

YHD060P3SP-RL-55.391/78.456



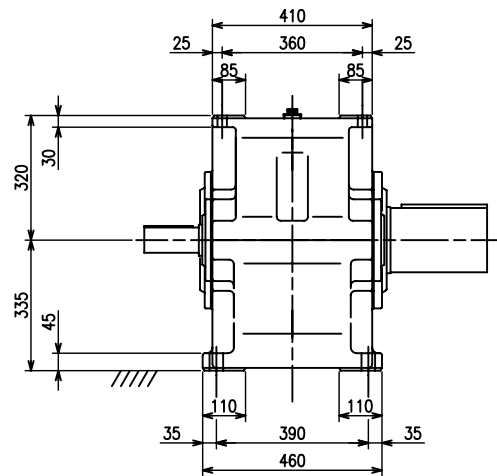
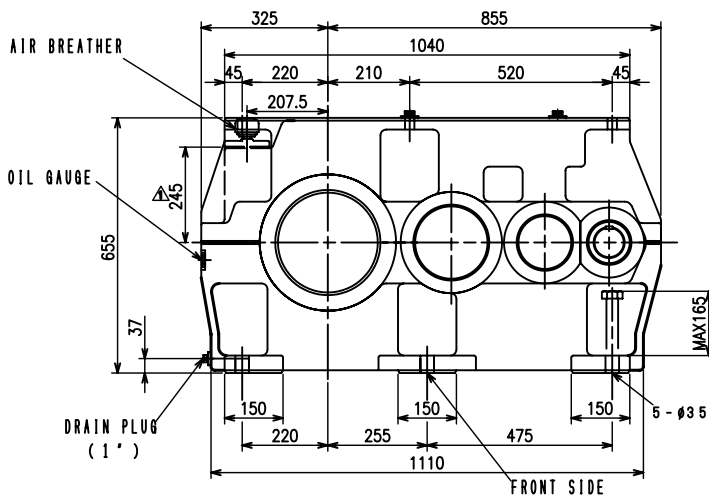
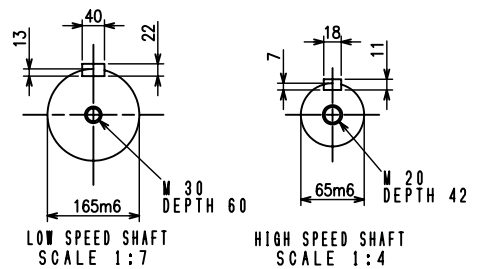
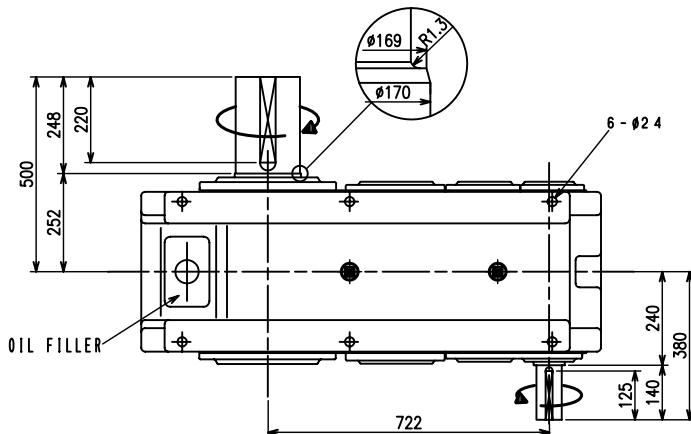
## SCREW PRESS DRIVE 15T (P15) REDUCER SPECIFICATIONS

Model	Ratio	Torque Rating Nm	Input Speed rpm	Output Speed rpm	Power Rating kW	Output Shaft dia mm	Input Shaft Dia mm	Weight (Approx) kg	Oil Qty (Approx) l
YHD060P3SP-RL-55.391	55.391	48,000	1000	18.1	90	150	55	730	60
			750	13.5	68				
YHD060P3SP-RL-78.456	78.456	45,000	1000	12.7	60	150	55	730	60
			750	9.6	45				

Lubrication System Oil Bath  
Lubricant ISO VG460 AGMA 7EP

# Screw Press Drive P20

YHD080P3SP-LR-76.353



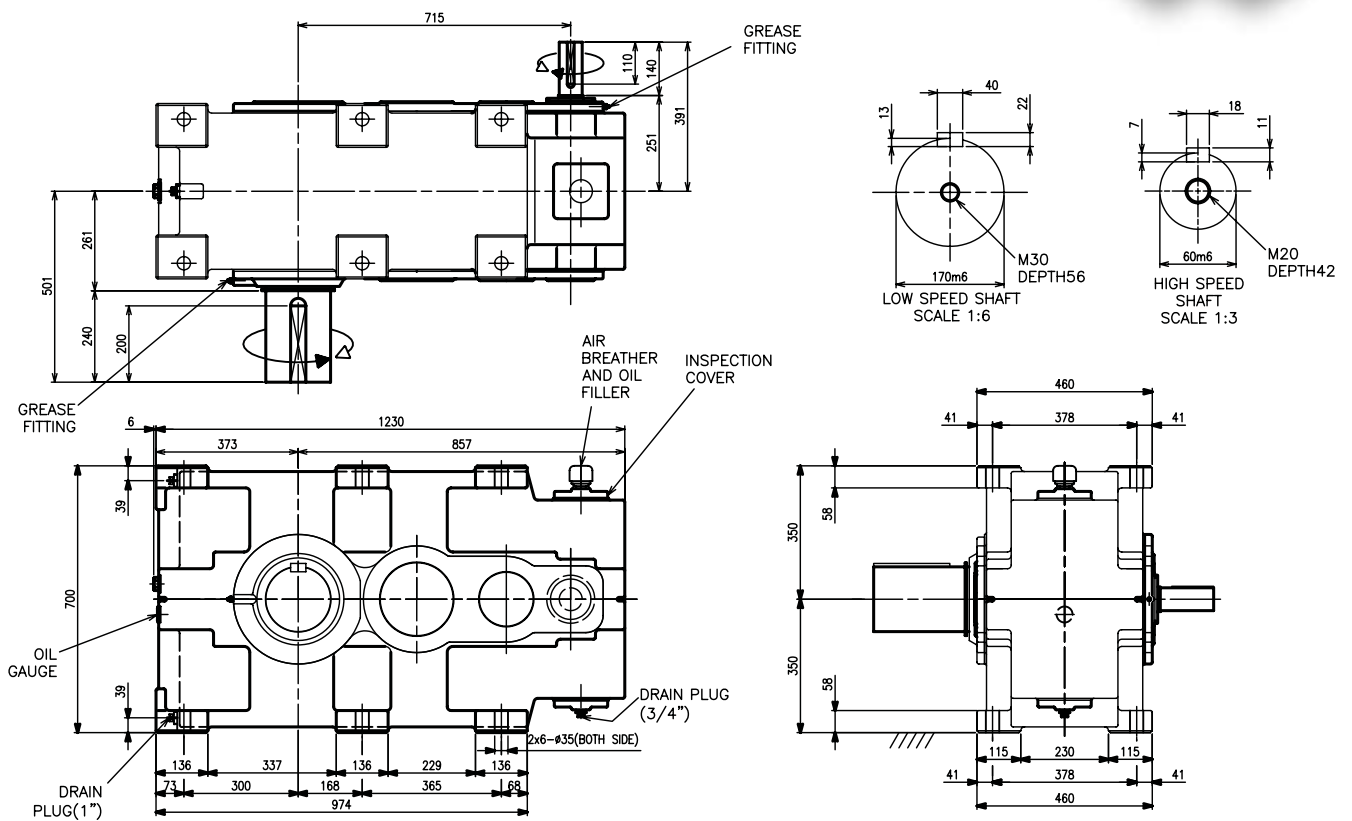
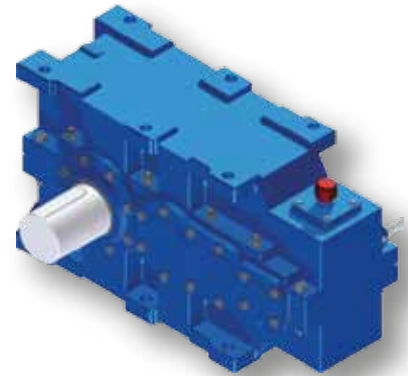
## SCREW PRESS DRIVE 20T (P20) REDUCER SPECIFICATIONS

Model	Ratio	Torque Rating Nm	Input Speed rpm	Output Speed rpm	Power Rating kW	Output Shaft dia mm	Input Shaft Dia mm	Weight (Approx) kg	Oil Qty (Approx) l
YHD080P3SP-LR-76.353	76.353	74,000	1000	13.1	100	165	65	1,000	65
			750	9.8	75				

Lubrication System: Oil Bath  
Lubricant: ISO VG220 AGMA 7EP

# Screw Press Drive P20

YHD070P3SP-RL-77.373



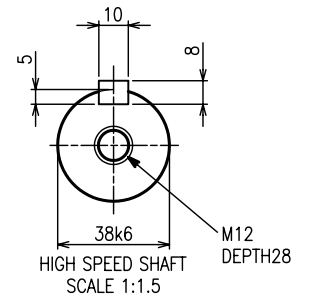
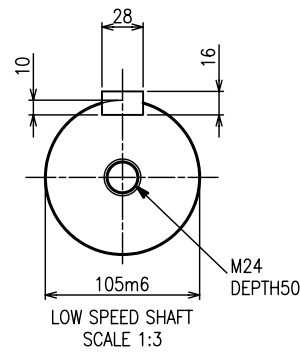
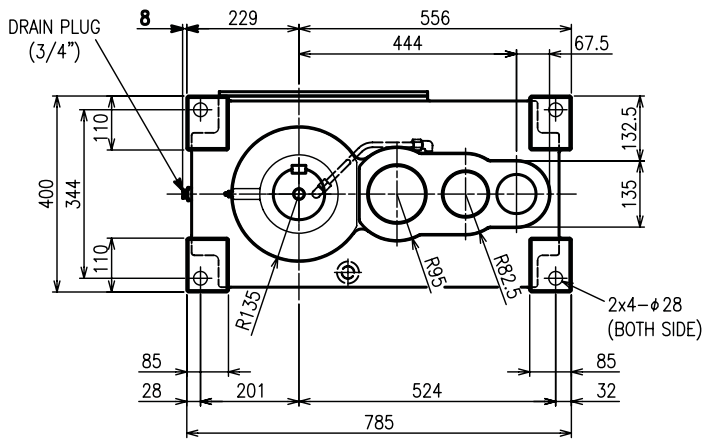
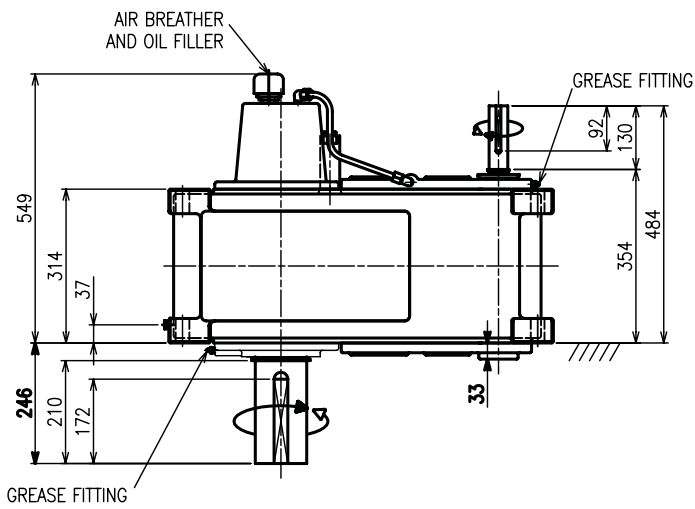
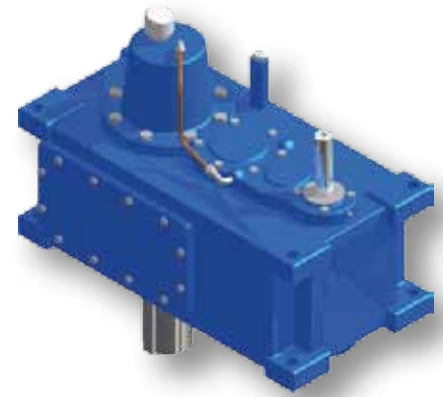
## SCREW PRESS DRIVE 20T (P20) REDUCER SPECIFICATIONS

Model	Ratio	Torque Rating Nm	Input Speed rpm	Output Speed rpm	Power Rating kW	Output Shaft dia mm	Input Shaft Dia mm	Weight (Approx) kg	Oil Qty (Approx) l
YHD070P3SP-RL-77.373	77.373	70,000	1000	12.9	95	170	60	1,080	85
			750	9.7	71				

Lubrication System: Oil Bath  
Lubricant: ISO VG460 AGMA 7EP

# Digester Drive 3000L

YVA040P3DG-RL-57.962



## DIGESTER DRIVE 3000L REDUCER SPECIFICATIONS

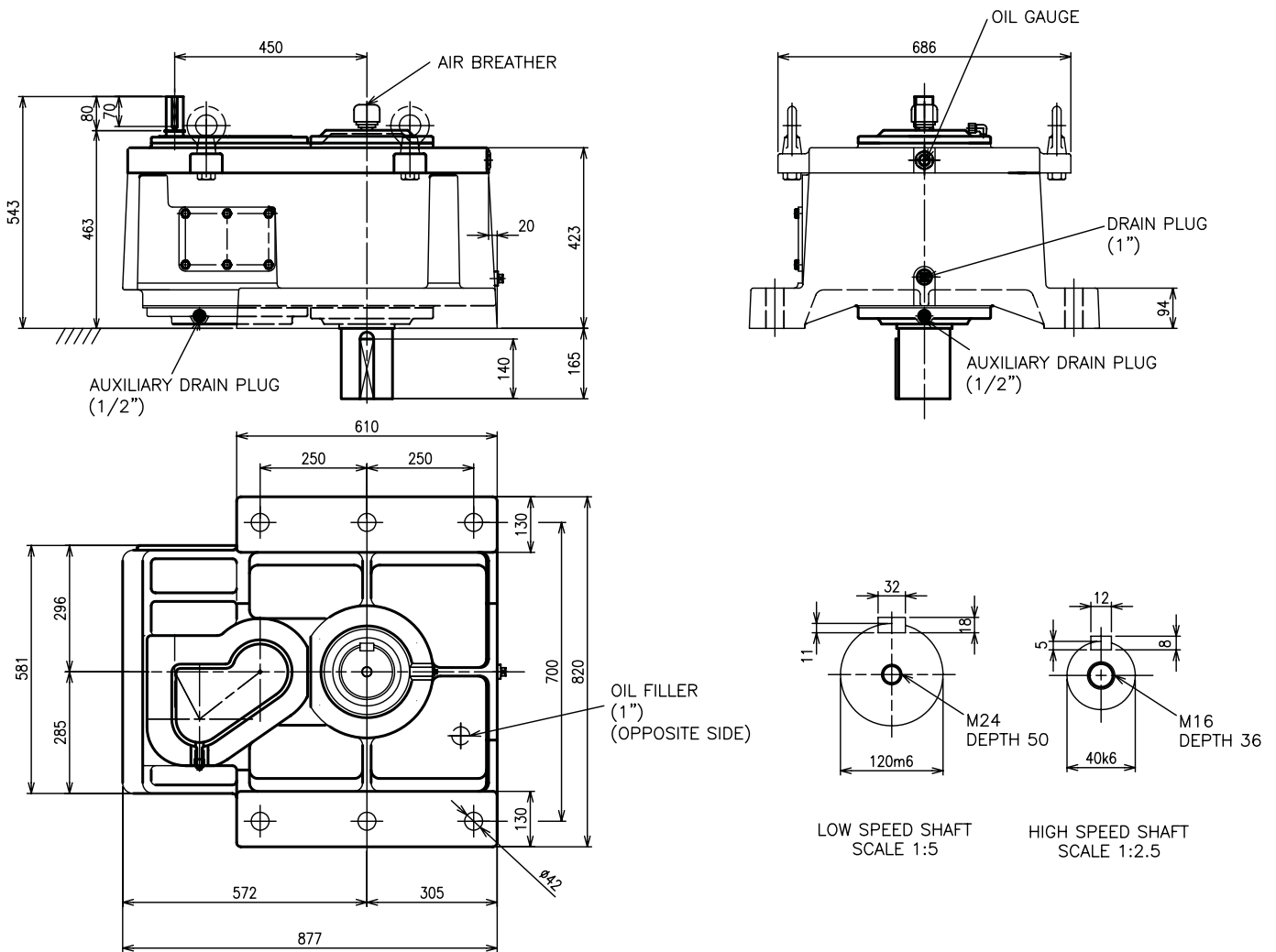
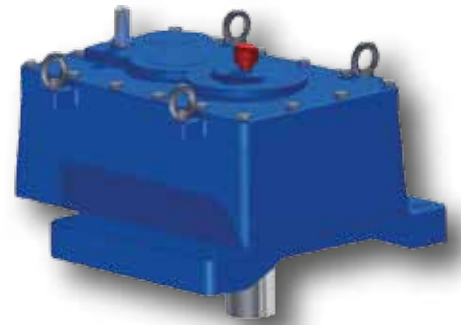
Model	Ratio	Torque Rating Nm	Input Speed rpm	Output Speed rpm	Power Rating kW	Output Shaft dia mm	Input Shaft Dia mm	Weight (Approx) kg	Oil Qty (Approx) l
YVA040P3DG-RL-57.962	57.962	18,000	1500	25.9	49	105	38	380	50

Lubrication System Oil Bath  
Lubricant ISO VG460 AGMA 7EP



# Digester Drive 6000L

YVD060P3DG-RL-57.328



## DIGESTER DRIVE 6000L REDUCER SPECIFICATIONS

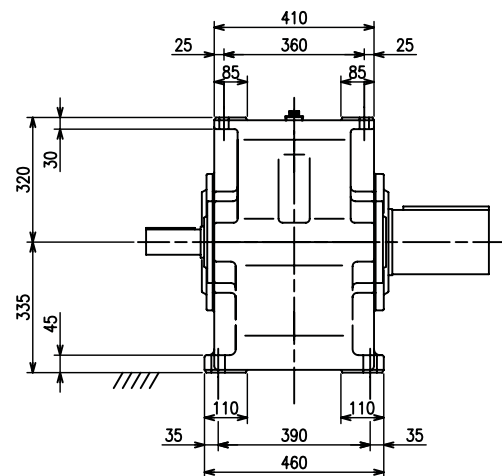
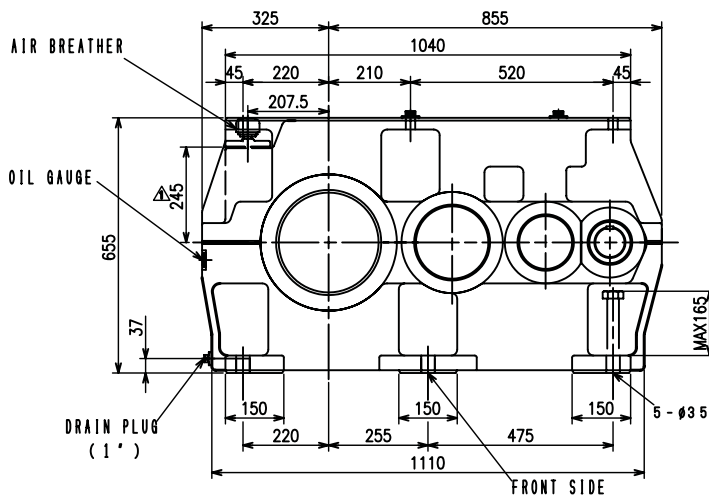
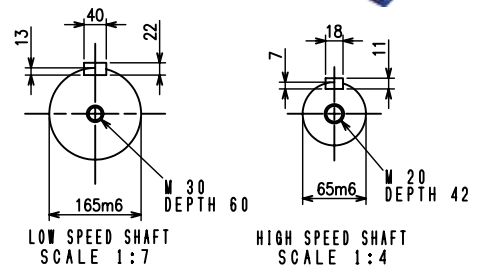
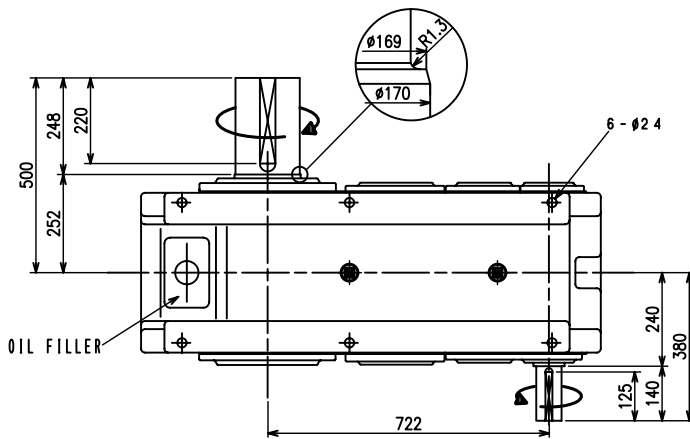
Model	Ratio	Torque Rating Nm	Input Speed rpm	Output Speed rpm	Power Rating kW	Output Shaft dia mm	Input Shaft Dia mm	Weight (Approx) kg	Oil Qty (Approx) l
YVD060P3DG-RL-57.328	57.328	32,000	1500	26.2	88	120	40	830	100

Lubrication System  
Lubricant

Oil Bath  
ISO VG460 AGMA 7EP

# Empty Fruit Bunch Press Drive

YHD080P3-LR-55.066



## EMPTY FRUIT BUNCH PRESS REDUCER SPECIFICATIONS

Model	Ratio	Torque Rating Nm	Input Speed rpm	Output Speed rpm	Power Rating kW	Output Shaft dia mm	Input Shaft Dia mm	Weight (Approx) kg	Oil Qty (Approx) l
YHD080P3-LR-55.066	55.066	74,000	1000	18.2	140	165	65	1,000	65
			750	13.6	105				

Lubrication System  
Lubricant

Oil Bath  
ISO VG220 AGMA 7EP



Sumitomo's Speed reducers and geared motors are available **EX-STOCK** in **Malaysia, Indonesia, Thailand and Singapore.**

Suitable for any **Palm Oil Mill** and **Kernel Press** drive requirements, our products are **warranted for two years\*** irrespective of hours of operations.

With over **30 YEARS** of **EXPERIENCE** in the **Palm Oil Industry**, we strive to be a **DEPENDABLE** partner for your power transmission solutions, providing not only **VALUE FOR YOUR MONEY** but also a peace of mind!

\*Sumitomo Cyclo, BBB and HBB reducers and geared motors are warranted for 24 months from the date of shipment or 18 months from the date of coming into operation, whichever earlier. Other products are warranted for 18 months from the date of shipment or 12 months from the date coming into operation, whichever earlier. Details are available on Terms and Condition of Purchase. Please contact Sumitomo.



Screw Press • Digester • Thresher • KCP • Empty Bunch Press • Capstan • Conveyors

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### Hanoi Representative Office

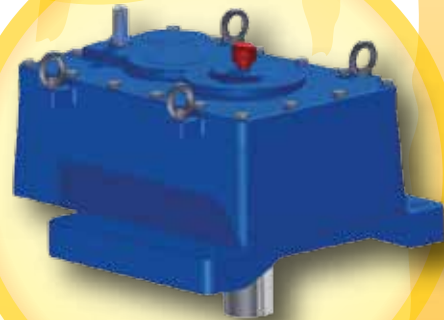
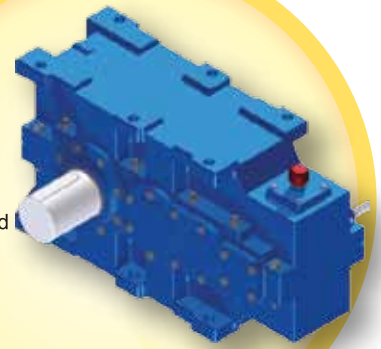
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