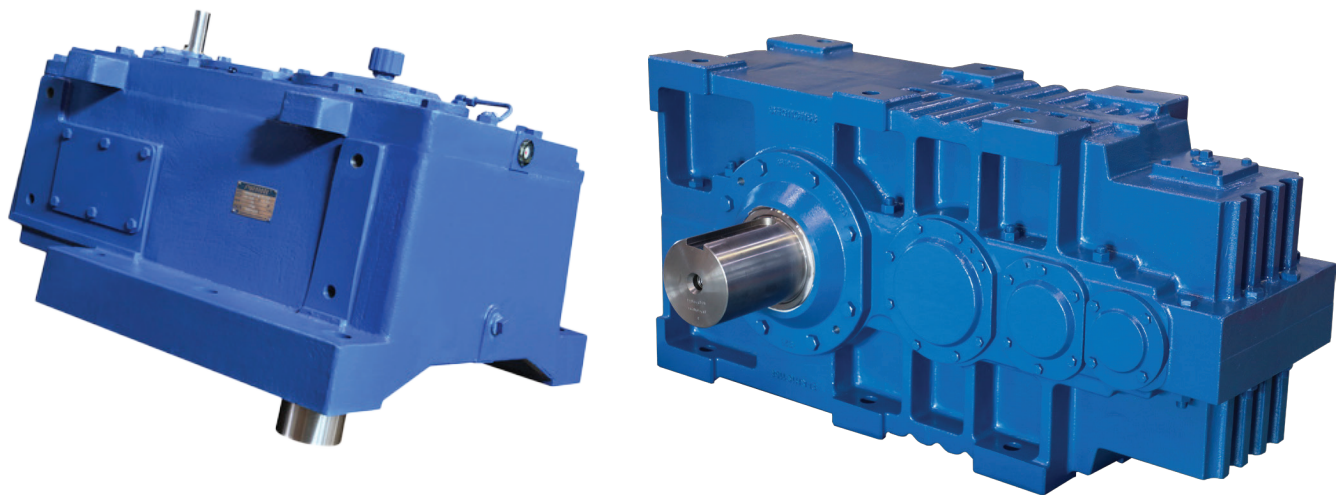


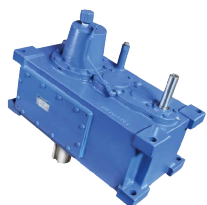
Sumitomo Drive Technologies

PARAMAX® YHD SERIES

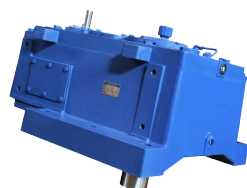
For Palm Oil Industry



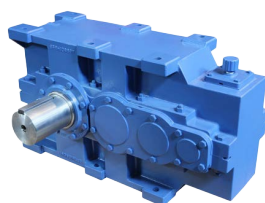
Key products for palm oil mill



PARAMAX® YVA040



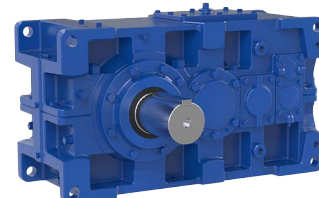
PARAMAX® YVD060



PARAMAX® YHD070



PARAMAX® YHD080P3



PARAMAX® 9000



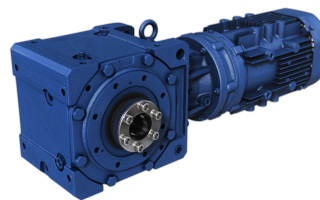
CYCLO® 6000
SPEED REDUCER



CYCLO® 6000
GEARMOTOR



BEVEL BUDDYBOX®
SPEED REDUCER



BEVEL BUDDYBOX®
GEARMOTOR



HELICAL BUDDYBOX®



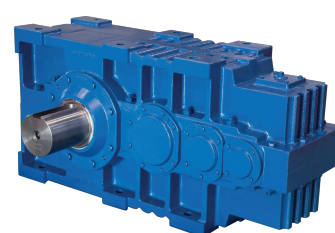
HELICAL BUDDYBOX®



CYCLO® IN-LINE VERTICAL



CYCLO® VERTICAL
GEARMOTOR



PARAMAX® YHD090

Key process in palm oil mill operation

The palm oil extraction mill and kernel processing place heavy demands on power transmission drives. Our products are suitable for all applications in the process.

STERILIZATION STATION

- Loading Ramp
- FFB Elevator
- Capstan
- Auto Feeder
- Thresher Drum
- Under Thresher Conveyor
- Fruit Elevator
- Top Cross Conveyor
- Fruit Distribution Conveyor
- Recycling Fruit Conveyor

NUT PROCESSING STATION

- Ripple Mill /Nut Cracker
- Shaking Grate
- Cracker Mixture Conveyor
- Air Lock Cracker Mixture Separator
- Cracker Mixture Conveyor
- Hydro Cyclone
- Wet Kernel Conveyor & Elevator
- Kernel Silo
- Kernel Winnowing Fan
- Air Lock Kernel Winnowing
- Sludge Conveyor

PRESSING STATION

- Digester
- Screw Press
- Cake Breaker Conveyor

EFB PROCESSING STATION

- Inclined Empty Bunch Conveyor
- EFB Shredder
- EFB Press
- EFB Fiber Conveyor

CLARIFICATION STATION

- Oil Clarifier Stirrer
- Solid Conveyor
- Fuel Distribution Conveyor

POWER GENERATION STATION

- Fuel Distribution Conveyor
- Fuel Conveyor & Elevator
- Oil Clarifier Stirrer
- Air-lock Dust Cyclone
- Air-lock Shell Cyclone

NUT PROCESSING STATION

- Nut Polishing Drum
- Wet Nut Elevator & Conveyor
- Dry Nut Elevator & Conveyor
- Air Lock Nut Winnowing System
- Grading Drum

Comprehensive Aftermarket Services

Our regional presence at major industrial cities in Asia-Pacific, (including Australia and India) is catered to your before-and-aftermarket services needs.



We offer the most comprehensive support system in the region for every aspect of the gear lifecycle, from installation to maintenance, diagnostics and repair.

Our Engineering Service Centers in the region offer a wide range of services including and not limited to:

- Factory certified repair centres located throughout Asia Pacific.
- 24 hours on-call service
- Field service and Expedited service
- Dedicated resources for customer support:
 - Service parts
 - Repair services
- Application upgrades, lube systems, sealing systems, etc.
- Technical support and maintenance recommendations
- Improved reliability of existing drives
 - Reduced down-time
 - Reduced Maintenance costs
 - Repair Hansen, Sumitomo and other brands
- Recommended service parts and parts management
 - Recommended maintenance intervals
- Custom "drop-in" replacements

Free Health Check!

We offer free health checks for all gearboxes and gearmotors at your Palm Oil Mill*

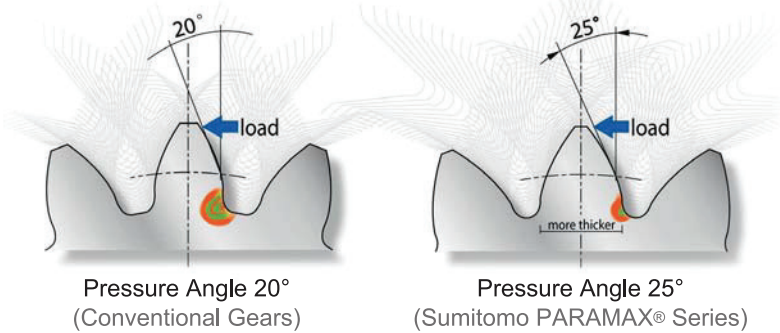
- Factory inspection
- Comprehensive reports
- Maintenance advices
- Consultation & technical presentation
- Training & seminars
- Speedy quotation & delivery

Talk to our representative now!

**Services limited to Malaysia and Indonesia only*

PARAMAX[®] YHD Series For Palm Oil Industries

Features



Gears

- Carburized Alloy Steel SCM822H
- Surface hardness HRC58-62
- Increased strength with 25° pressure angle
- Hardened & precision ground finish
- Grade 12

Shaft

- Heat treated alloy steel SCM440H
- Tempered & ground finish

Bearings

- Taper roller bearing or Spherical roller bearing

Housing

- Machined top surface

Installation

- Housing designed to facilitate easy installation and removal of fasteners

Oil gauge

- Bulls eye oil gauge

SUMITOMO PARAMAX [®] GEARBOXES FEATURES AND BENEFITS	
Features	Benefits
AGMA 12, High Quality Gearing Accuracy	Increased Strength and Durability
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)	Flippable Housing	Contents Page
Kernel Expeller Drive	YHD090P3-RL-54.642	54.642	93,000	✓	6
	YHD080P3-LR-55.066	55.066	74,000	-	7
	YHD-070P3-55.438	55.438	74,000	✓	8
Screw Press Drive (P15)	YHD060P3SP-RL-55.391	55.391	48,000	✓	9
	YHD060P3SP-RL-78.456	78.456	45,000	✓	9
Screw Press Drive (P20)	YHD080P3SP-RL-76.353	76.353	74,000	-	10
	YHD070P3SP-RL-77.373	77.373	70,000	✓	11
Digester Drive (3000L)	YVA040P3DG-RL-57.962	57.962	18,000	-	12
Digester Drive (6000L)	YVD060P3DG-RL-57.328	57.328	32,000	-	13
Empty Fruit Bunch Press Drive	YHD080P3-LR-55.066	55.066	74,000	-	14
	YHD070P3-RL-55.438	55.438	74,000	✓	15
	YHD090P3-RL-54.642	54.642	93,000	✓	6
Thresher Drive	PHA9045P3-RL-56	56.250	13,200	-	16

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

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

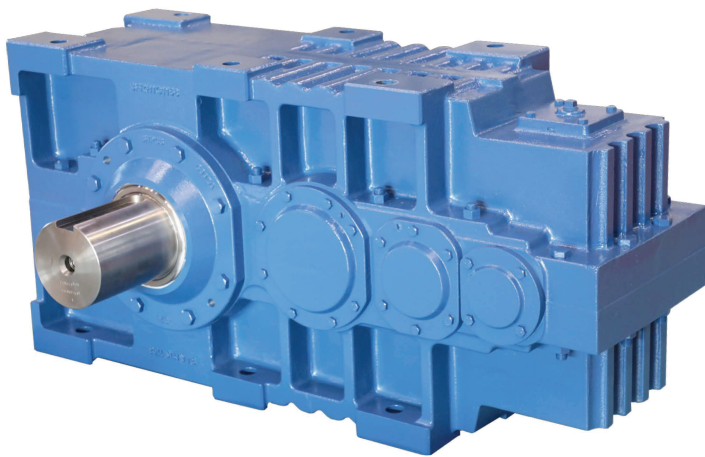
- Other paint specification is possible upon request.

TECHNICAL NOTES
<ol style="list-style-type: none"> 1. Lubrication: Oil Bath: Please use correct Oil Viscosity 2. Temperature correction factor must be used when calculating thermal capacity of the gearbox 3. All Gear Ratings are based on ISO 6336-1996 4. Keys and Keyways are based on JIS B 1301-1996 Parallel key in fastening type (ISO R773-1969 Close Keys)

Sumitomo Drive Technologies

NEXT GENERATION GEARBOX for Palm Oil Industry

NEW

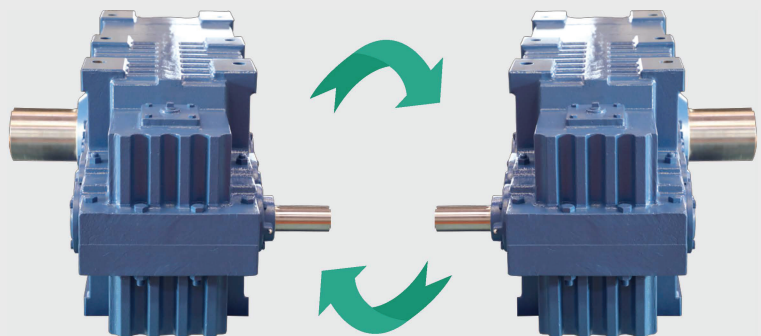


Suitable for: 75kW KCP
90kW EFB
110kW EFB

- Higher Capacity
- Higher Productivity
- Lower Maintenance
- Longer Lifetime

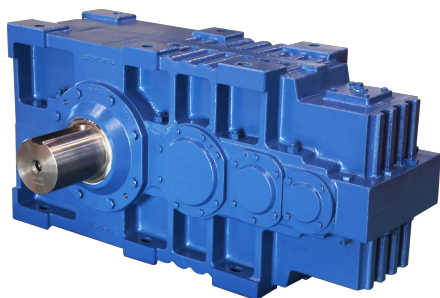
FLIPPABLE Housing design

Ease in upgrading,
interchangeable with
our current series

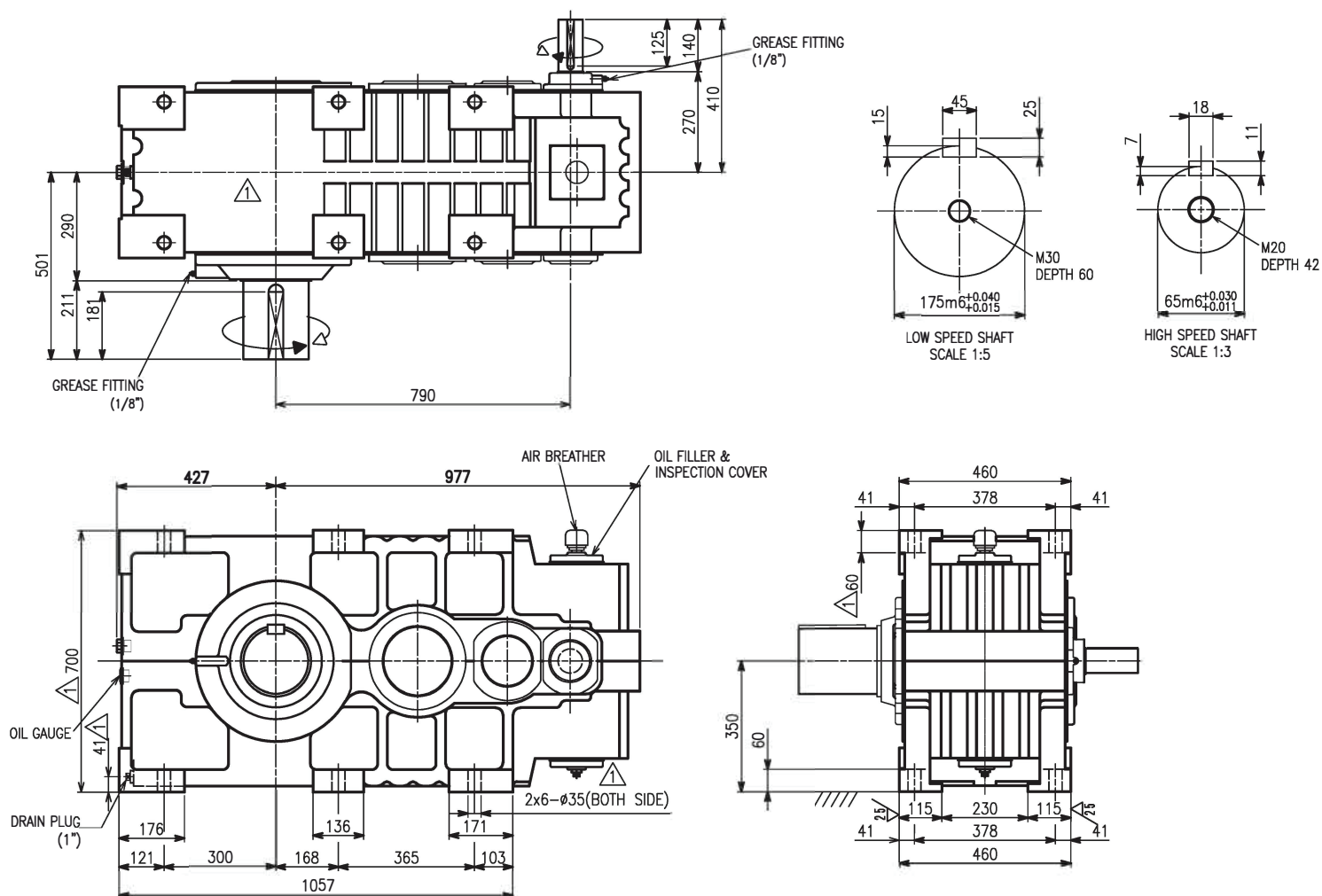


PARAMAX® YHD Series for Palm Oil Industry

HIGH CAPACITY
Empty Bunch Press
Kernel Expeller Drive



YHD090P3-RL-54.642



REDUCER SPECIFICATIONS

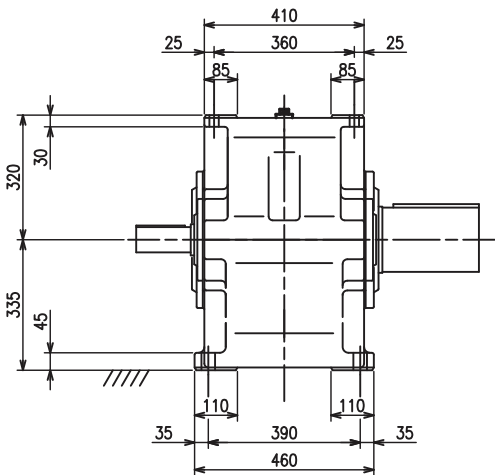
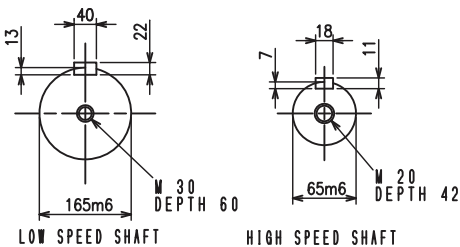
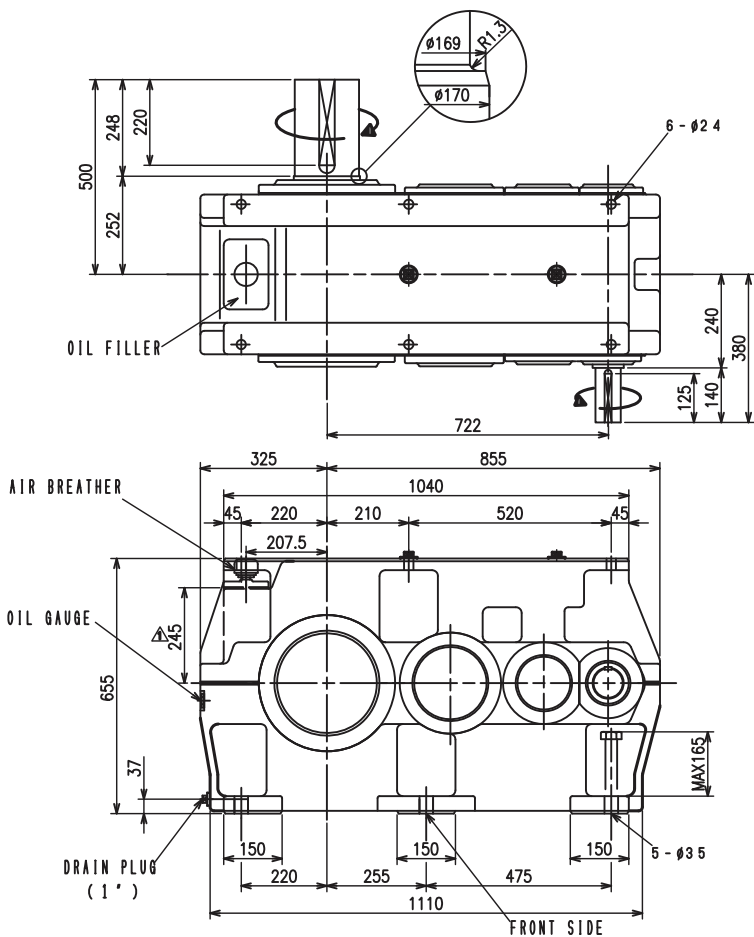
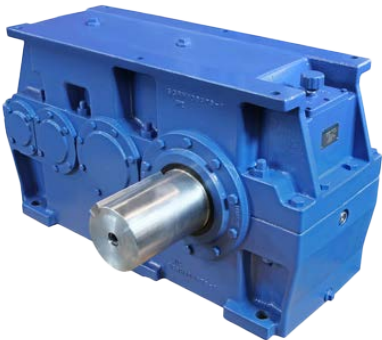
Model	Ratio	Torque Rating Nm	Input Speed rpm	Output Speed rpm	Power Rating kW	Output Shaft dia mm	Input Shaft Dia mm	Weight (Approx) kg	Oil (Approx) l
YHD090P3-RL-54.642	54.642	93,000	1,000	18.3	178	175	65	1,300	95
			900	16.4	159				
			765	14.0	136				

Lubrication System
Lubricant

Oil
ISO VG460 AGMA 7EP

Kernel Expeller Drive

YHD080P3-LR-55.066



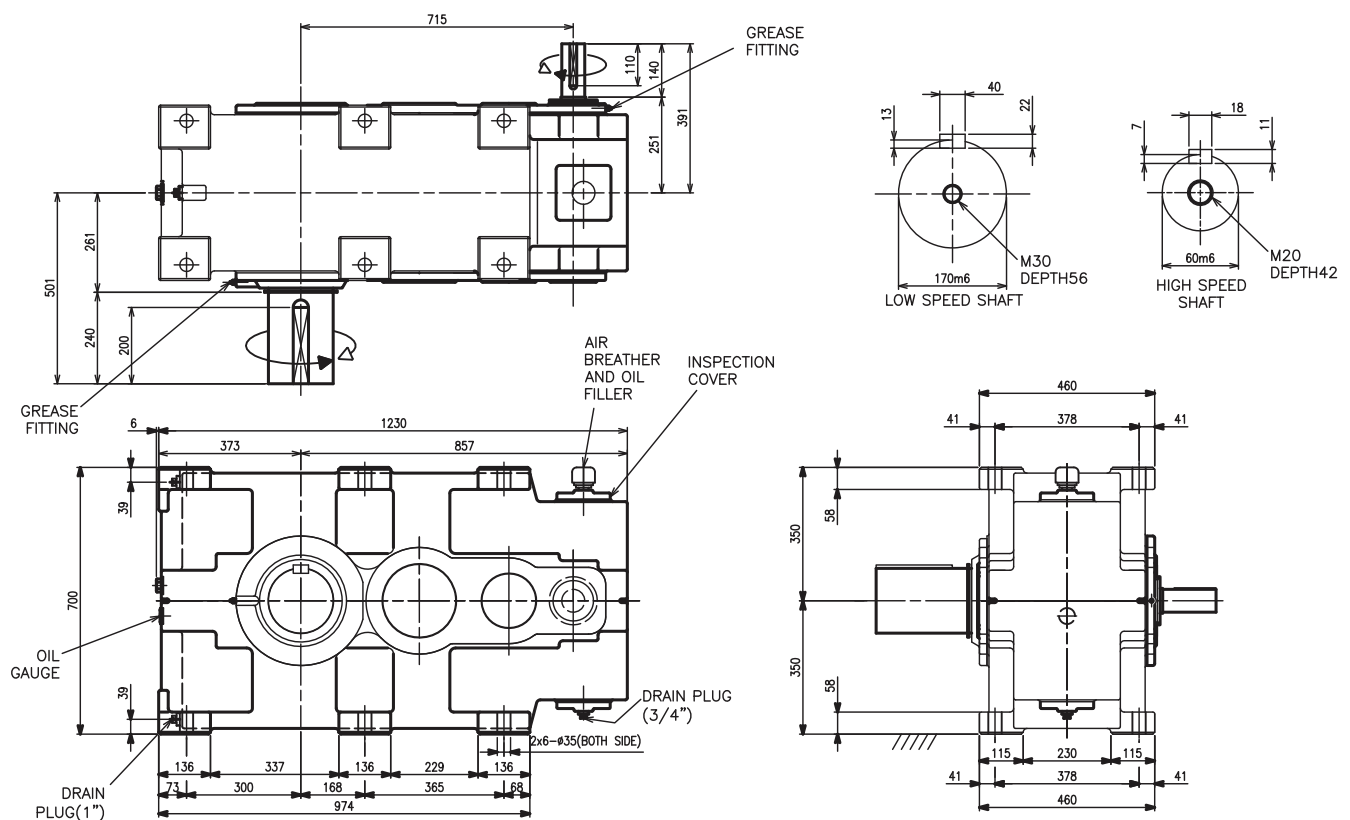
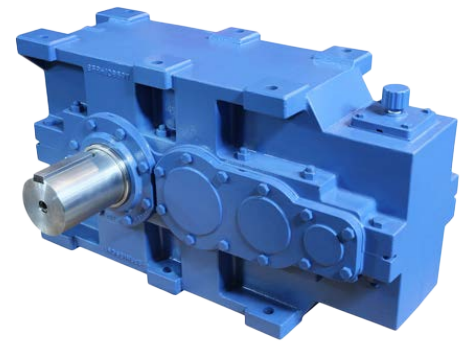
KERNEL EXPELLER DRIVE REDUCER SPECIFICATIONS

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	74,000	1000	18.2	140	165	65	1000	80
			900	16.3	126				
			750	13.6	105				

Lubrication System Oil Bath
Lubricant ISO VG 220/320/460 AGMA 5EP/6EP/7EP

Kernel Expeller Drive

YHD070P3-RL-55.438



KERNEL EXPELLER DRIVE REDUCER SPECIFICATIONS

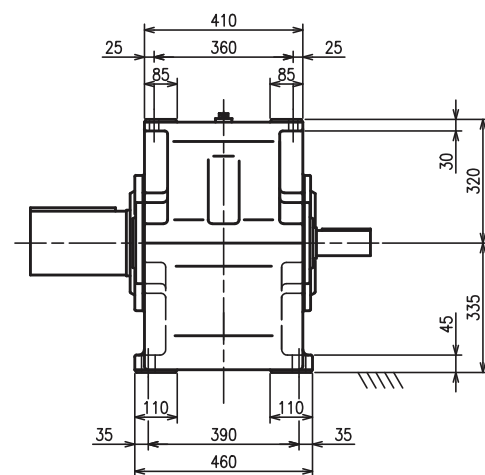
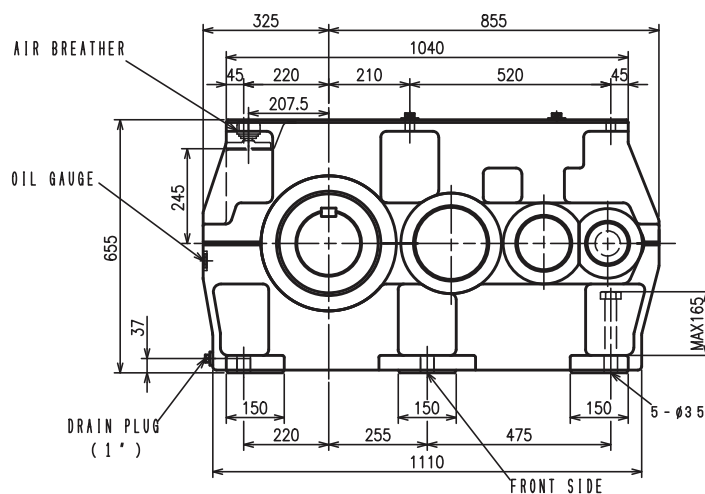
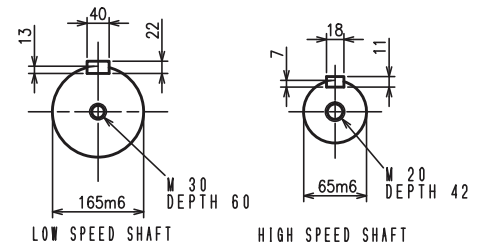
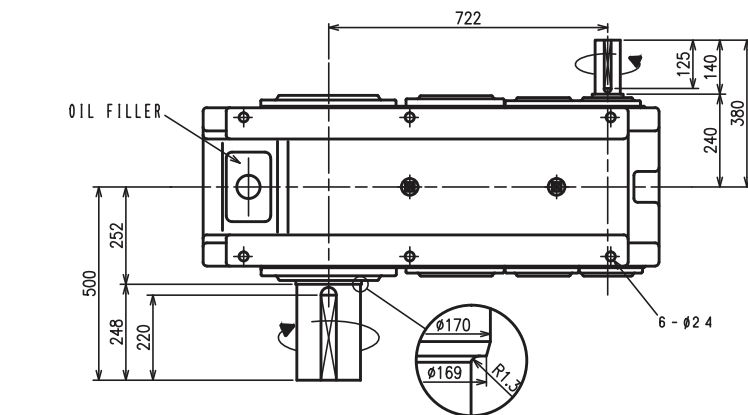
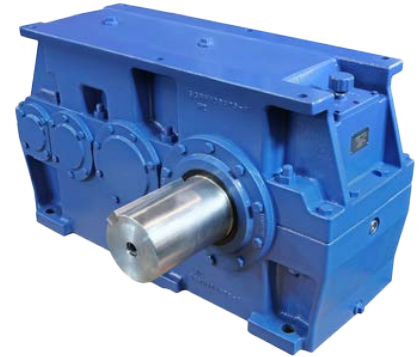
Model	Ratio	Torque Rating Nm	Input Speed rpm	Output Speed rpm	Power Rating kW	Output Shaft dia mm	Input Shaft Dia mm	Weight (Approx) kg	Oil Qty (Approx) l
YHD070P3-RL-55.438	55.438	74,000	1000	18.2	140	170	60	1080	85
			900	16.4	126				
			750	13.7	105				

Lubrication System
Lubricant

Oil Bath
ISO VG460 AGMA 7EP

Screw Press Drive P20

YHD080P3SP-RL-76.353



SCREW PRESS DRIVE P20 (20t/hour) REDUCER SPECIFICATIONS

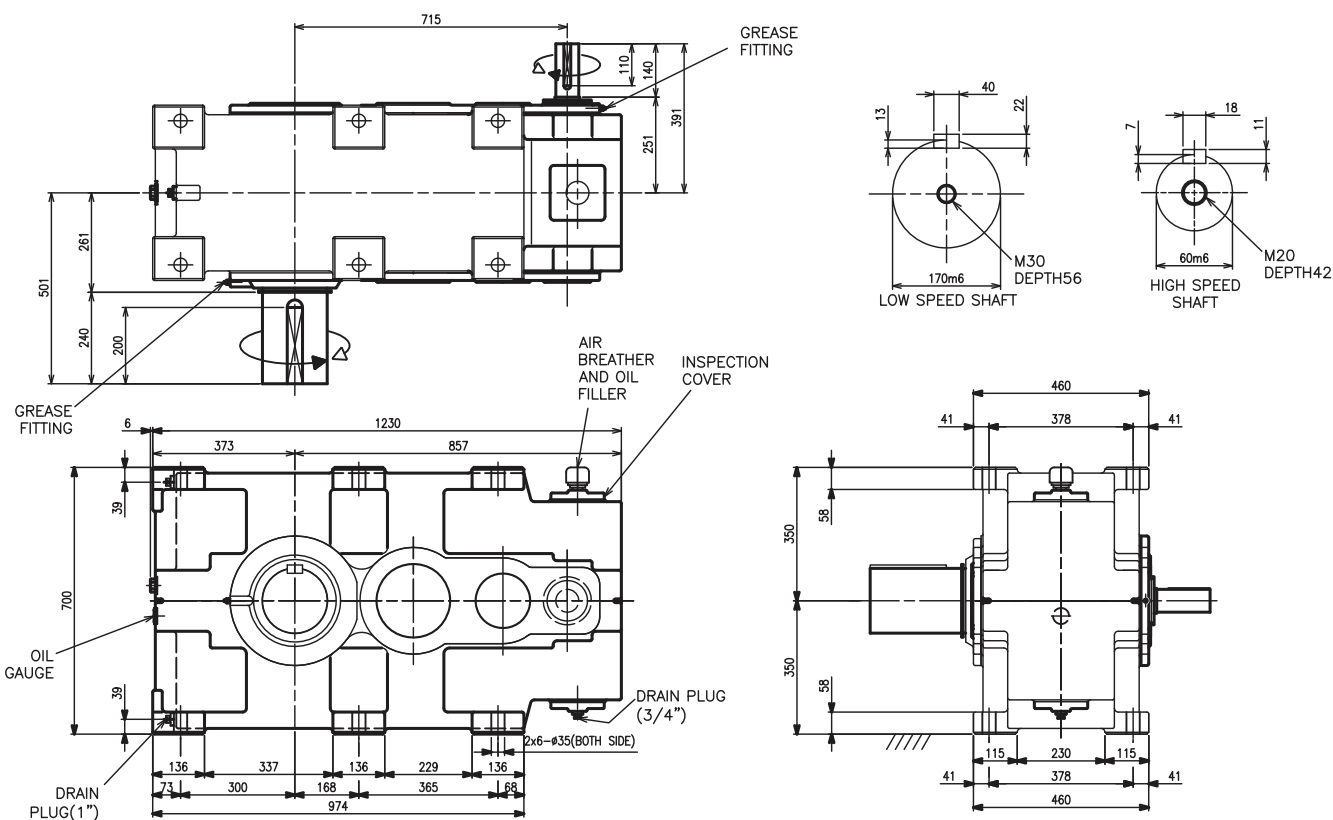
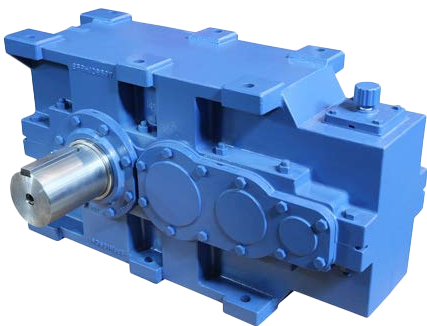
Model	Ratio	Torque Rating Nm	Input Speed rpm	Output Speed rpm	Power Rating kW	Output Shaft dia mm	Input Shaft Dia mm	Weight (Approx) kg	Oil Qty (Approx) l
YHD080P3SP-RL-76.353	76.353	74,000	1000	13.1	100	165	65	1,000	80
			750	9.8	75				

Lubrication System
Lubricant

Oil Bath
ISO VG 220/320/460 AGMA 5EP/6EP/7EP

Screw Press Drive P20

YHD070P3SP-RL-77.373



SCREW PRESS DRIVE P20 (20t/hour) REDUCER SPECIFICATIONS

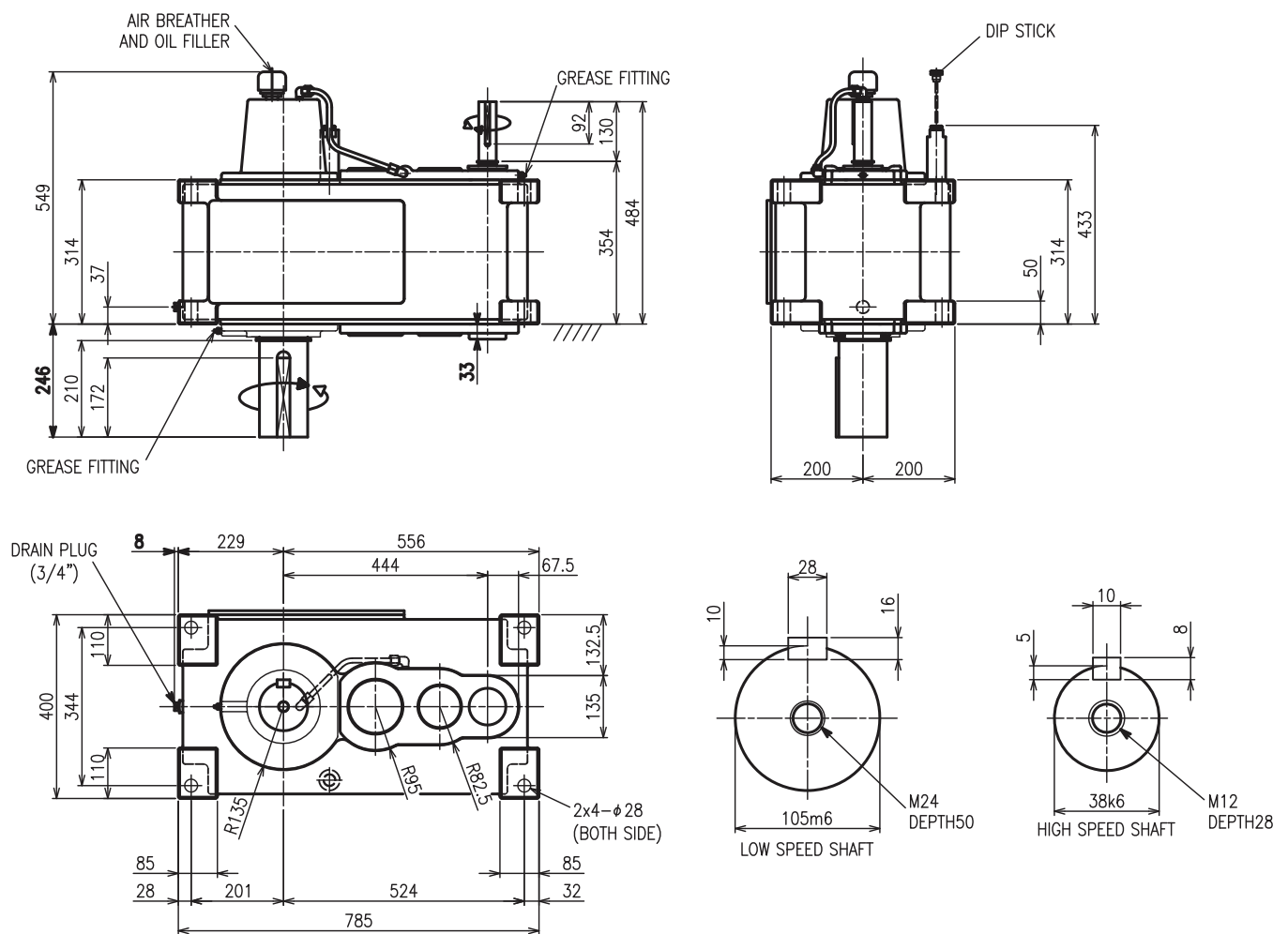
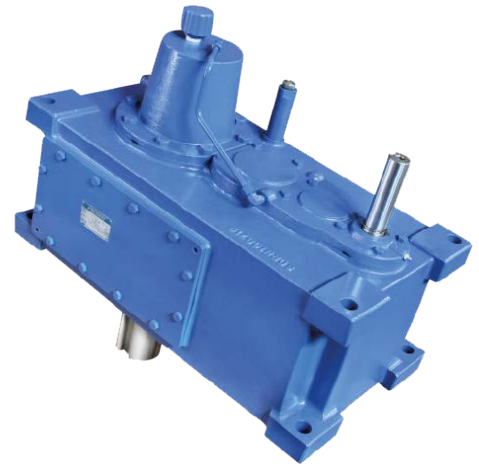
Model	Ratio	Torque Rating Nm	Input Speed rpm	Output Speed rpm	Power Rating kW	Output Shaft dia mm	Input Shaft Dia mm	Weight (Approx) kg	Oil Qty (Approx) l
YHD070P3SP-RL-77.373	77.373	70,000	1000	12.9	95	170	60	1,080	85
			750	9.7	71				

Lubrication System
Lubricant

Oil Bath
ISO VG460 AGMA 7EP

Digester Drive 3000L

YVA040P3DG-RL-57.962



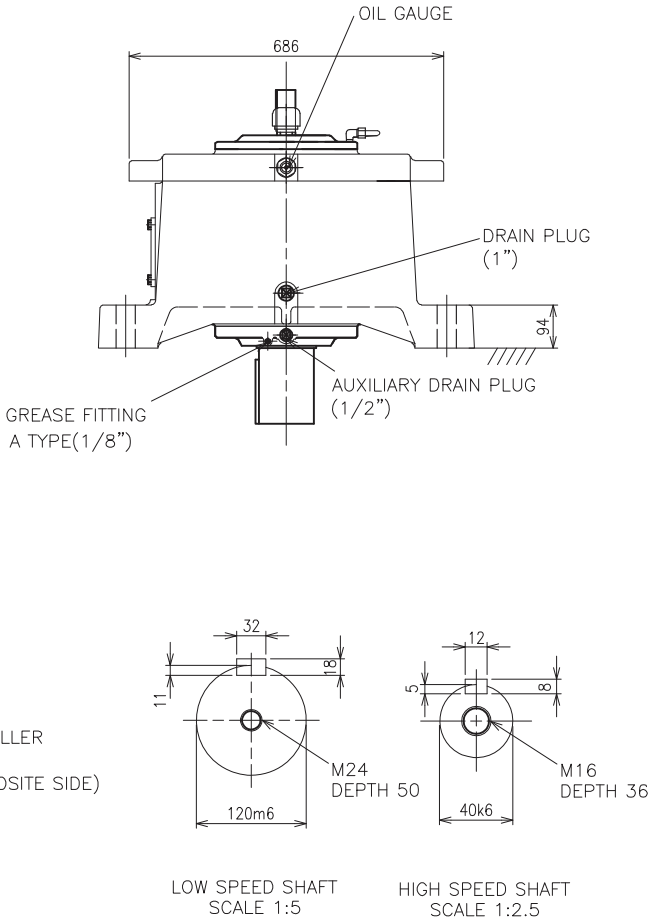
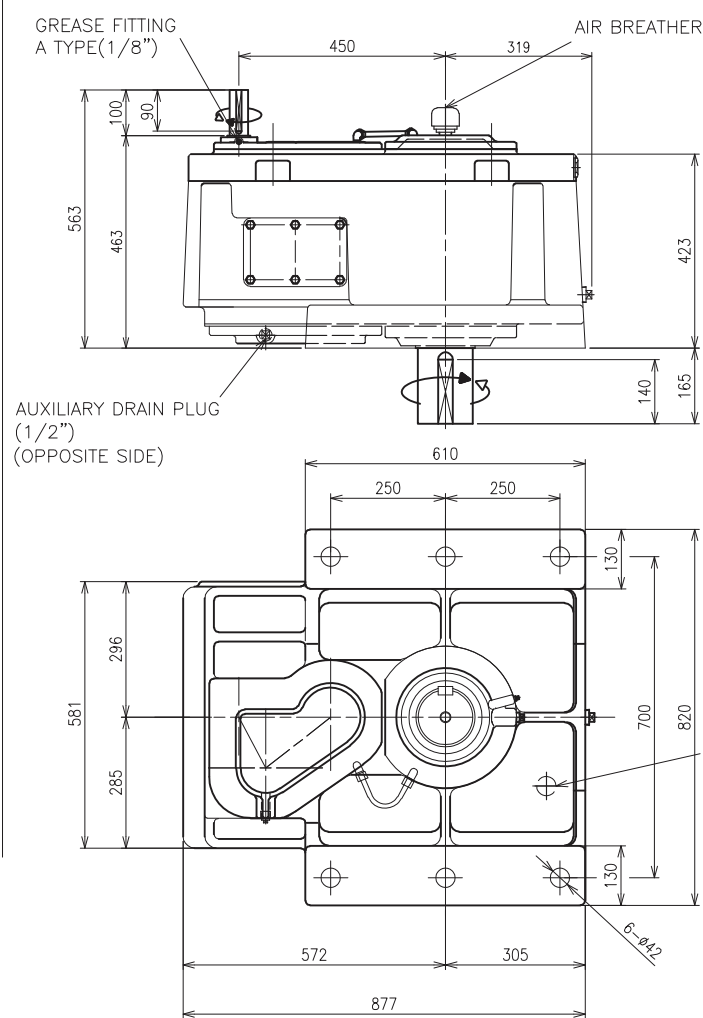
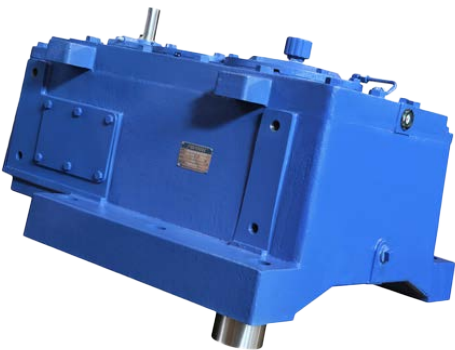
DIGESTER DRIVE 3000L REDUCER SPECIFICATIONS

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



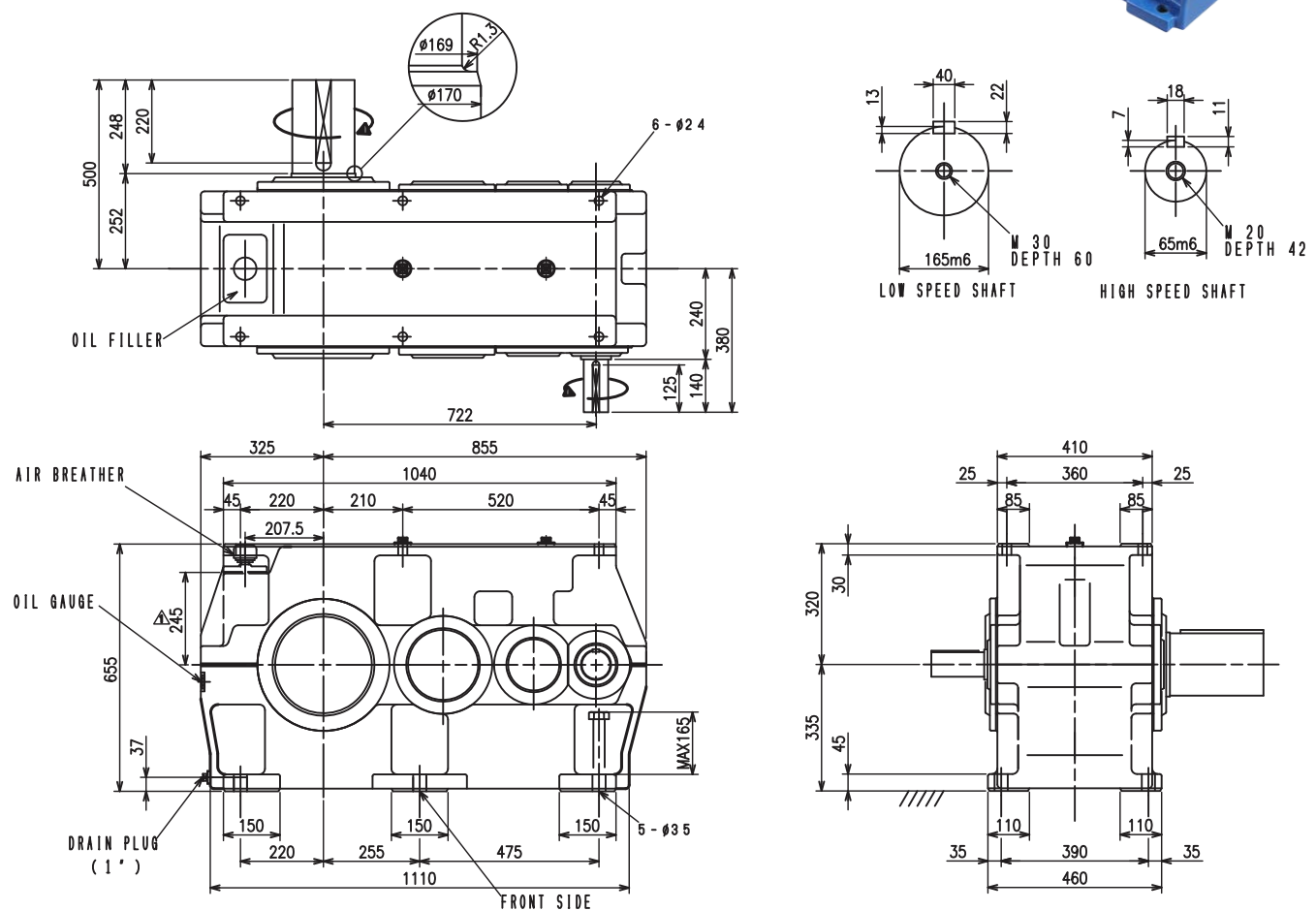
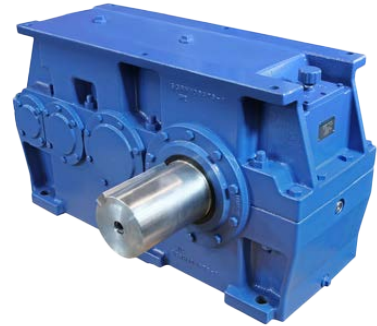
DIGESTER DRIVE 6000L REDUCER SPECIFICATIONS

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	Oil Bath
Lubricant	ISO VG460 AGMA 7EP

Empty Fruit Bunch Press Drive

YHD080P3-LR-55.066



EMPTY FRUIT BUNCH PRESS REDUCER SPECIFICATIONS

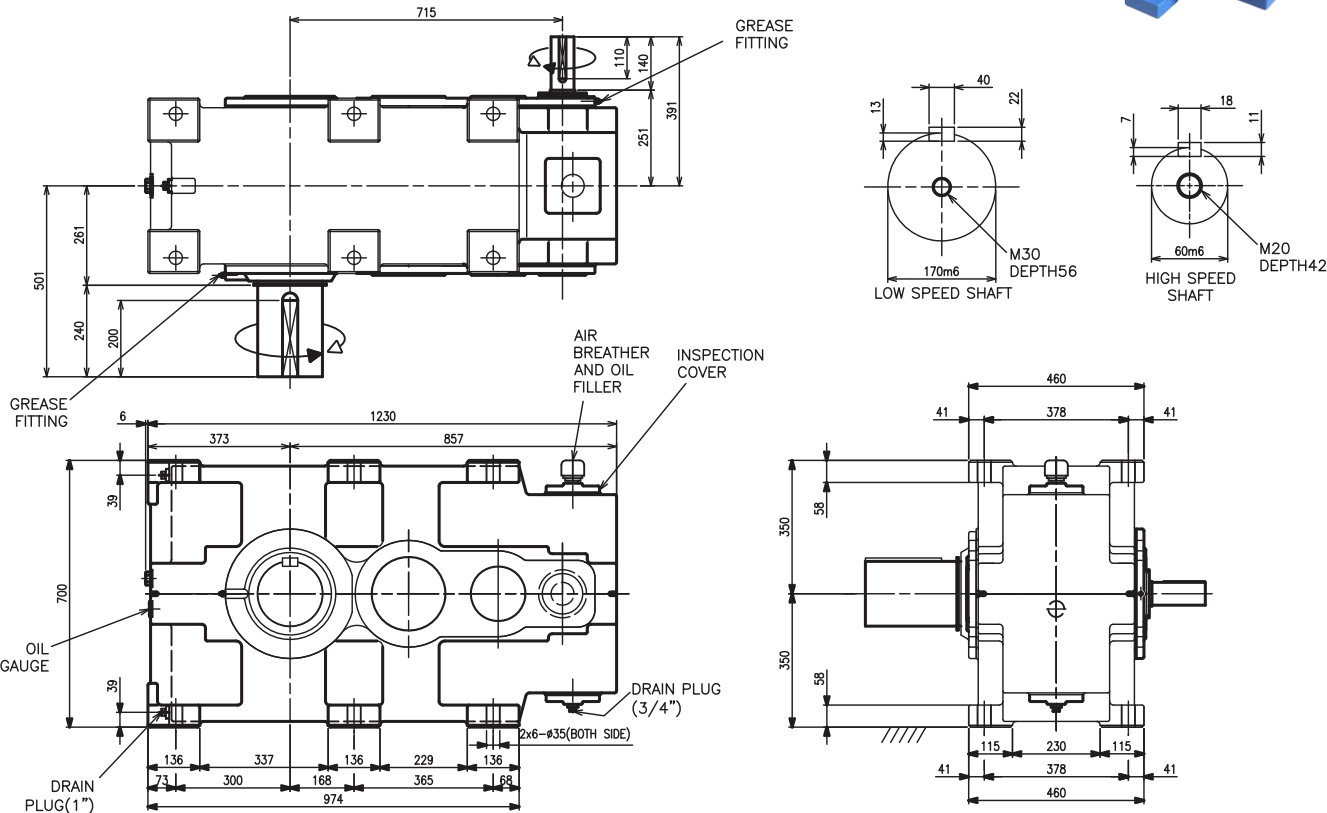
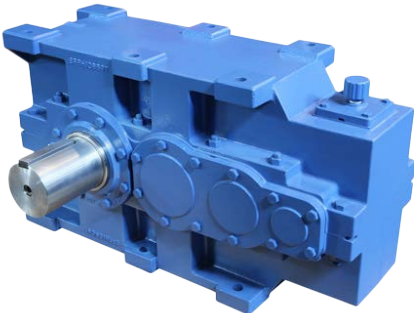
Model	Ratio	Torque Rating Nm	Input Speed rpm	Output Speed rpm	Power Rating kW	Output Shaft dia mm	Input Shaft Dia mm	Weight (Approx) kg	Oil Qty (Approx) l
YHD080P3-LR-55.066	55.066	74,000	1000	18.2	140	165	65	1,000	80
			750	13.6	105				

Lubrication System
Lubricant

Oil Bath
ISO VG 220/320/460 AGMA 5EP/6EP/7EP

Empty Fruit Bunch Press Drive

YHD070P3-RL-55.438



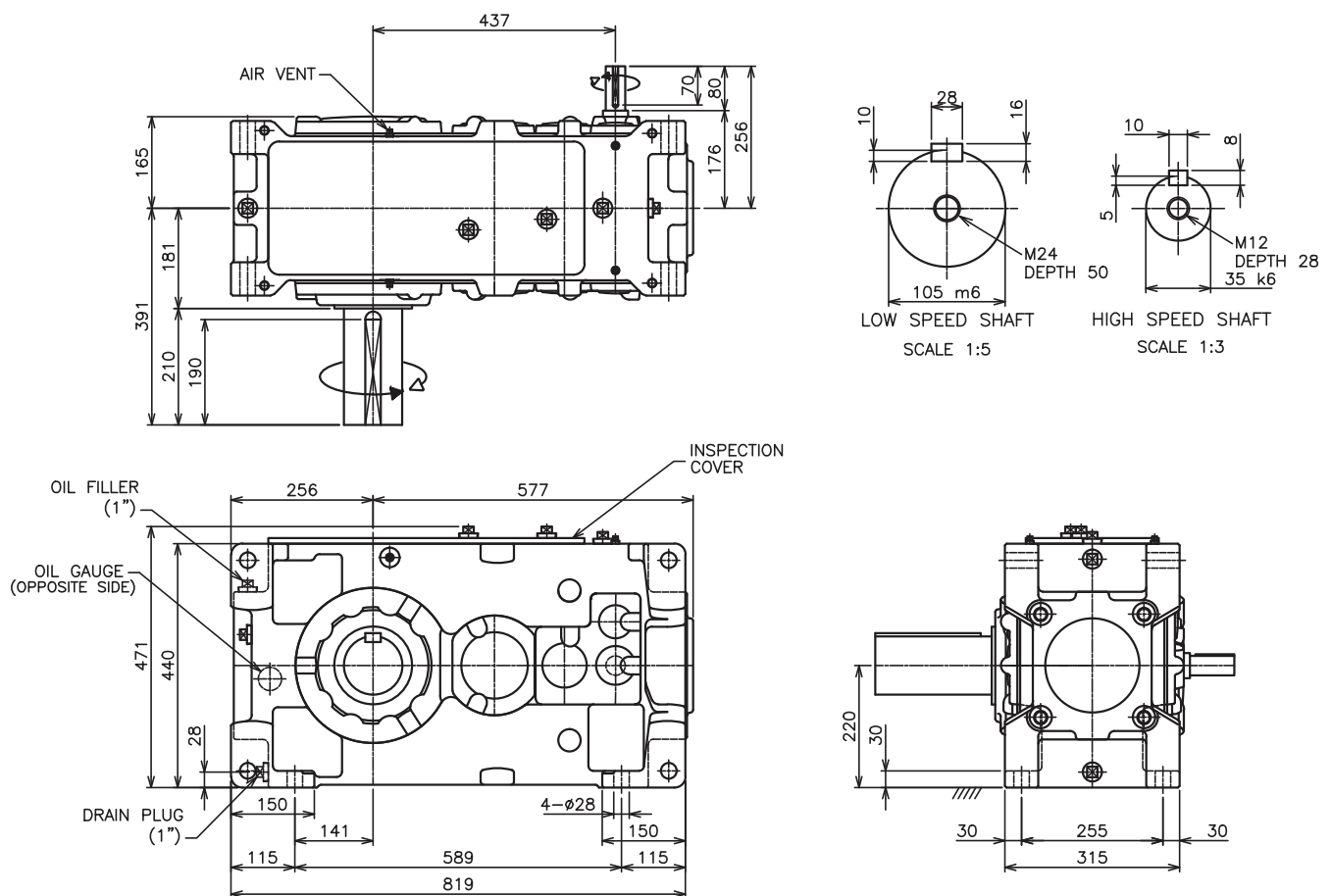
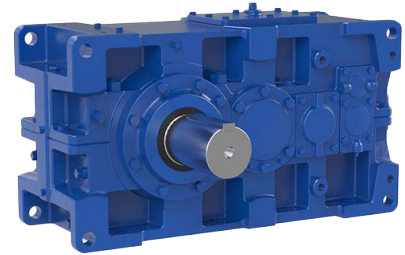
KERNEL EXPELLER DRIVE REDUCER SPECIFICATIONS

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
YHD070P3-RL-55.438	55.438	74,000	1000	18.2	140	170	60	1080	85
			900	16.4	126				
			750	13.7	105				

Lubrication System Oil Bath
Lubricant ISO VG460 AGMA 7EP

Thresher Drive

PHA9045P3-RL-56



THRESHER 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
PHA9045P3-RL-56	56.250	13200	1500	27	36	105	35	375	21
			1000	18	24.5				

Lubrication System	Oil Bath
Lubricant	ISO VG220/320/460

Applications



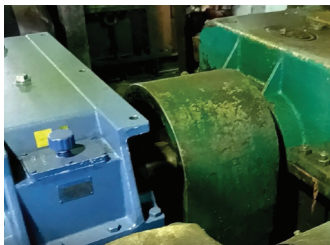
YHD090: 90kW-110kW EFB Press
High shock load capacity



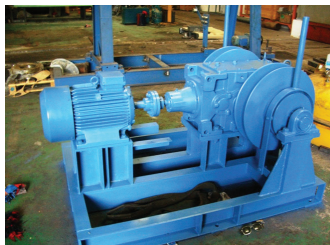
YHD090: 75kW KCP 2nd Press
Long operation life



YHD060: FFB Conveyor



YHD080: P20 Screw Press



PHA9050: Capstan



YHD070: Kernel Press



YHD080: Kernel Press



YVD060: Digester



YHD070: Kernel Press



YHD080: Kernel Press



YVD060: Digester



Cyclo: Thresher



Cyclo: FFB Conveyor



Cyclo: FFB Conveyor

Our South East Asia network

Ready stocks available at Malaysia, Indonesia, Thailand



Malaysia

Catered for a myriad of industry needs, our professional service personnels are available for after sales service to customers across Malaysia at Johor Bahru, Penang, Sabah and Sarawak, with a factory at Kuala Lumpur.

Tel: +60 3 51210455



Indonesia

Established at Cikarang, together with our supporting service and stock centre at Sampit and sales offices in Surabaya, Medan and Balikpapan.

Tel: +62 21 2961 2100



Thailand

Efficient delivery of products, spare parts and Engineering services around the Kingdom. Assembly plant located at Chonburi, Service Centre at Khon Kaen and Sales offices are located in Bangkok, Hat Yai and Nakornratchasima.

Tel: +66 2 670 0998



Singapore (APAC HQ)

Our Asia Pacific HQ in Singapore provides marketing, engineering and inventory support to all subsidiaries and customers in the region. With the largest assembly and stock centre in the region, customers' requirements are attended to quickly.

Tel: +65 6591 7800



Vietnam

Our fully equipped Cyclo Centres in Ho Chi Minh and Sales facility are supported by well-trained engineers to serve the customer in diverse industries such as Food and Beverage, Cranes and Hoists, Animals and Livestock, Power and Mining, Cement and Material Handling Industries.

Tel: +84 8 3766 3709



Philippines

Strategically located at Cebu and Manila respectively, the branch aims to be close to our customers in the Philippines.

Tel: +63 2 584 4921



Sumitomo Drive Technologies

With over 40 years of experience in the Palm Oil Industry and an extensive direct network in Southeast Asia, we are able to provide professional support and assistance required for your Palm Oil applications.

Ready stocks available at:
Malaysia, Indonesia, Thailand

- ★ Asia Pacific Headquarters
- ★ Manufacturing Hub
- Assembly & Service
- Service
- ▲ Regional Sales Office



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www.SumitomoDrive.com

For worldwide locations, please visit www.sumitomodrive.com/worldwide
Contact your local representative at www.sumitomodrive.com/representative Paramax YHD Series for Palm Oil Industry brochure 2023.06