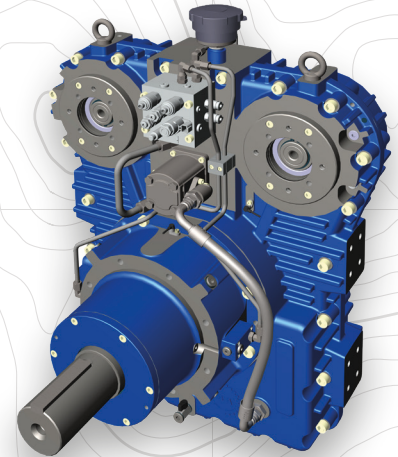
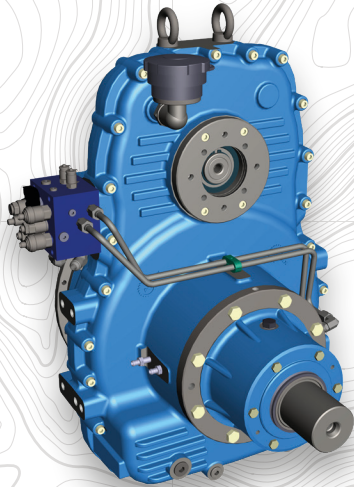




ON LAND



KATSA™ CLUTCH DRIVES POWER TAKE-OFFS



For Direct Driven
Working Machines

- Rock Crushers & Screeners
- Wood Chippers & Grinders
 - Waste Shredders
 - Agriculture Machines

KATSA™

COMPANY INTRODUCTION

ACCOMPLISH MORE

Katsa is a Finnish company specialized in designing and manufacturing gearboxes, gear components and provide gearbox refurbishment/modernization services.

Katsa gearbox business unit offers innovative gearbox solutions for following business sectors:

- Power take-off gearboxes and clutches for working machines and marine applications
- Drivetrain transfer gearboxes and electric drivetrain gearboxes for utility and defense vehicles
- Turning devices with high output torque
- Special vehicle winches
- Tailored gearboxes for the most demanding applications

Katsa gear component manufacturing has manufacturing capabilities for gear components up to Ø 1500 mm including gear grinding and in-house heat treatment. Katsa's modern machinery includes latest technology in gear component manufacturing, such as 5-axis machining, high-accuracy gear profile & cylindrical grinding and balancing capability for high speed components. Katsa Service offers a wide range of after-sales services for mechanical power transmission systems. These include spare parts, reverse engineering, gearbox refurbishment and modernization projects.



KATSA™ CLUTCH DRIVES

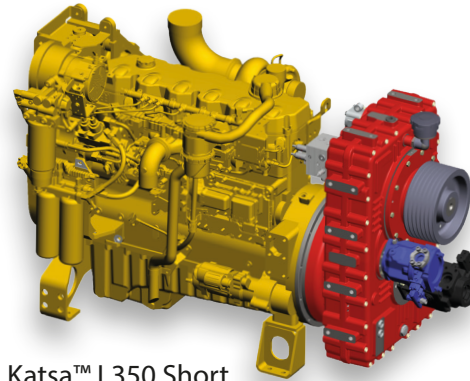
CLUTCH GEARBOX SERIES

- Engine Power Range 200 -1400 kW
- Directly Diesel-Engine mounted with SAE flange
- Up to 4x PTO's for hydraulic pumps or other devices.
- Wet Running multi-plate clutch up to 11.000 Nm
- Integrated Lubrication System & Oil-Sump
- Full Katsa™Clutch Control system

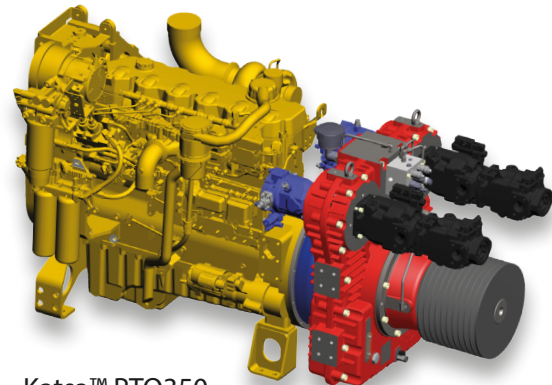
“CUSTOMER TESTIMONIAL”

METSO MINERALS HAS BEEN COOPERATING WITH KATSA OY LTD FOR DECADES.

According to Mikko Takaniemi, Driveline Specialist, Metso Mining and Construction, “The communication between ourselves and Katsa’s engineering department works seamlessly, and their technical knowledge is extremely impressive. With Katsa’s gearboxes we have been able to achieve the highest levels of efficiency and reliability in our equipment.”



Katsa™ L350 Short



Katsa™ PTO350

KATSA™ L250 CLUTCH

COMPACT WET-RUNNING CLUTCH WITH HIGH PERFORMANCE

Input

- Direct Engine mounting to bell housing J617 SAE 3 to SAE 1
- Optional Flexible Engine Coupling

Main Output

- Hydraulic Wet Plate Clutch.
Max. Transferrable Torques:
 - Clutch Size 55: 3000 Nm
 - Clutch Size 55 XL: 5000 Nm
- Side Load Capacity up to 30 kN

(To be calculated based on Application)

Lubrication

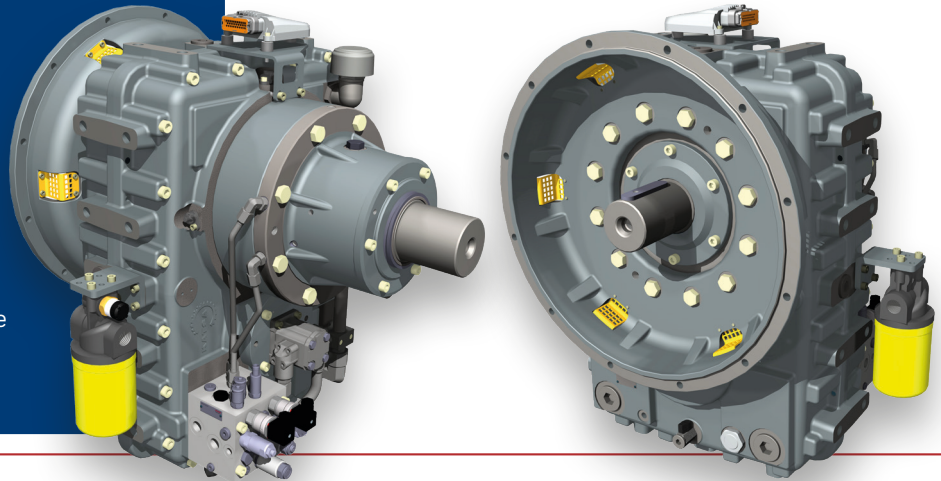
- Hydraulic Clutch Control Valve
- Internal oil sump
- Integrated oil pump and pressure lubrication

Optional Accessory

- Clutch Controller with CANbus interface
- Oil-Filter & Cooler
- Oil-Heating Elements

TECHNICAL SPECIFICATIONS

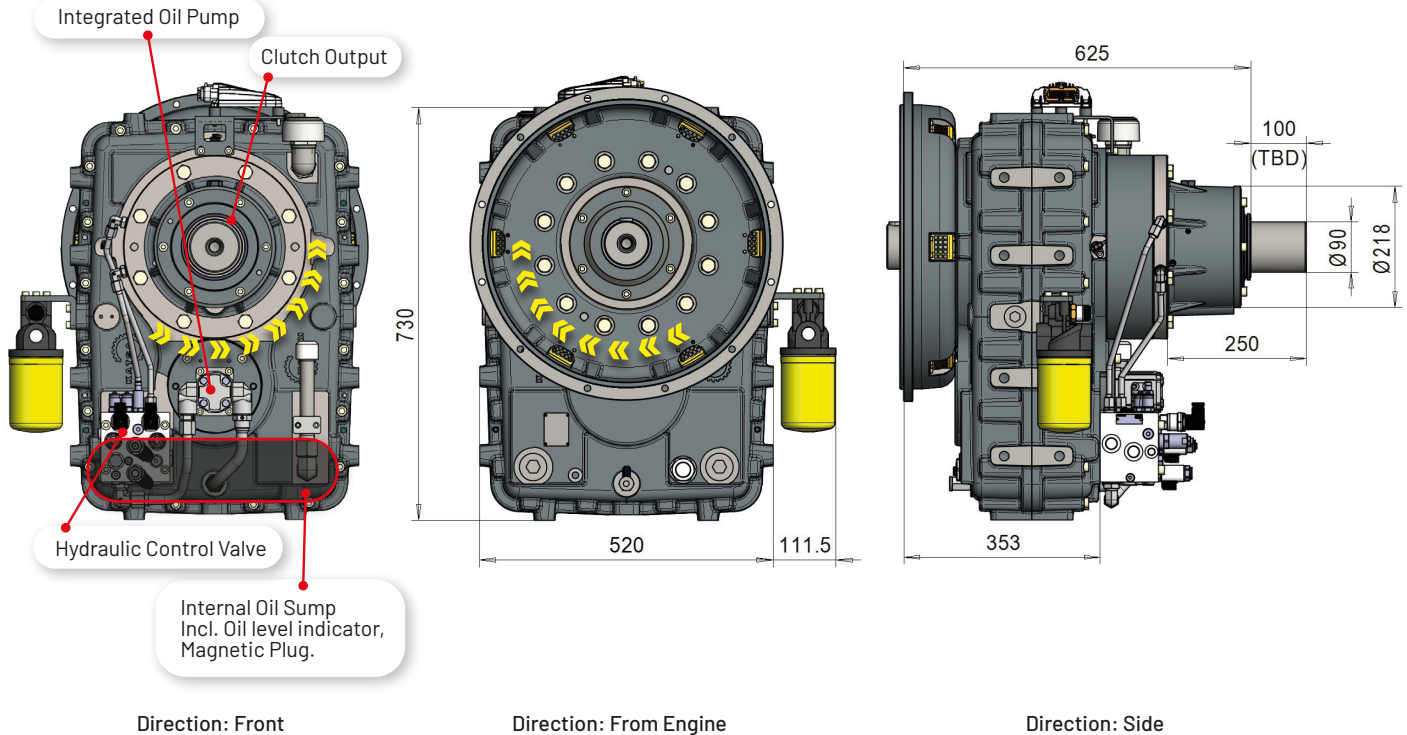
| | |
|---|--|
| Input Power Max. | 500 kW |
| Input Speed Nom. / Max. | 1600 rpm / 2100 rpm |
| Clutch Size Options Max. Transferrable Torque | Size 55: 3000 Nm Size 55 XL: 5000 Nm |
| Input Connection Options | • Engine Flange SAE 3 to SAE 1 • Shaft Connection |
| Main output | • Shaft Ø90 mm with keyway (standard) • Others on request |
| Output Side Load Capacity | Up to 30 kN |
| Weight | ~300 kg |



DIMENSIONS AND TECHNICAL FEATURES

Direction of rotation indicated with arrows

Dimensions in millimetres (mm)



KATSA™ L250 REVERSE CLUTCH

COMPACT WET-RUNNING CLUTCH WITH REVERSE OUTPUT ROTATION DIRECTION.

Input

- Direct Engine mounting to bell housing J617 SAE 3 to SAE 1
- Optional Flexible Engine Coupling

Main Output

- Hydraulic Wet Plate Clutch.
Max. Transferrable Torques:
 - Size 55: 3000Nm
- Integrated Parking Brake

Lubrication

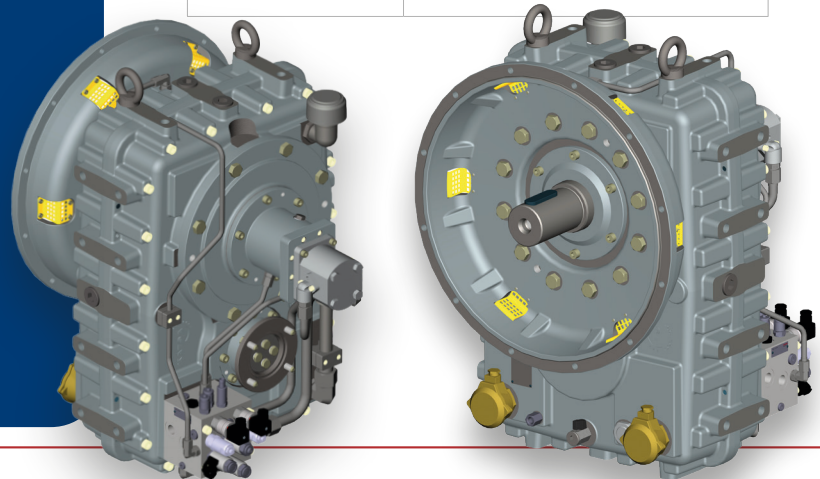
- Hydraulic Clutch Control Valve
- Internal oil sump
- Integrated oil pump and pressure lubrication

Optional Accessory

- Clutch Controller with CANbus interface
- Oil-Filter & Cooler
- Oil-Heating Elements

TECHNICAL SPECIFICATIONS

| | |
|--|---|
| Input Power Max. | 300 kW |
| Input Speed Nom. / Max. | 1600 rpm / 2100 rpm |
| Clutch Size, Max. Transferrable Torque | Size 55: 3000 Nm |
| Input Connection Options | <ul style="list-style-type: none">• Engine Flange SAE 3 to SAE 1• Shaft Connection |
| Main output | Driveshaft Flange for Cardan Shaft (standard) Others on request |
| Output Ratios | 1 : 2.16 (speed increasing) Other ratios on request. |
| Weight | ~300 kg |



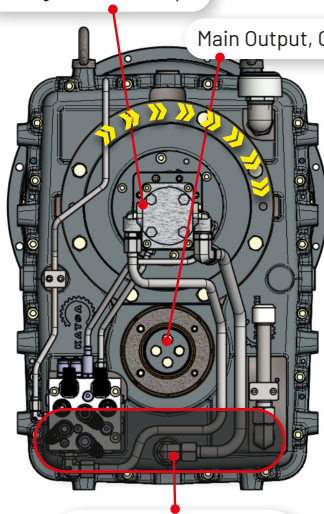
DIMENSIONS AND TECHNICAL FEATURES

Direction of rotation indicated with arrows

Dimensions in millimetres (mm)

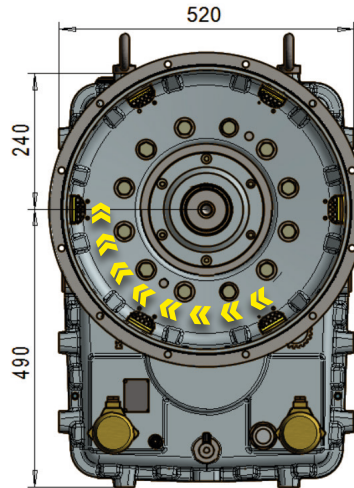
Integrated Oil Pump

Main Output, Clutch

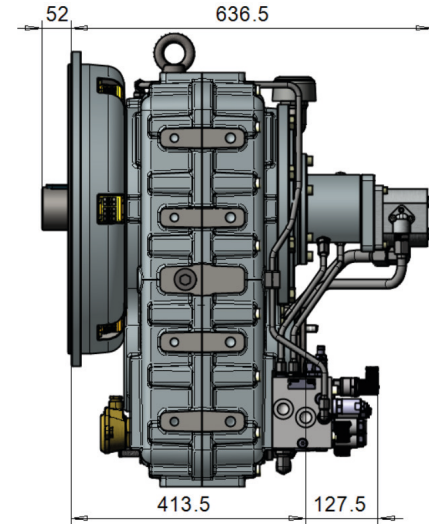


Internal Oil Sump
Incl. Oil level indicator,
Hydraulic Control Valve

Direction: Front



Direction: From Engine



Direction: Side

KATSA™

L350 PTO CLUTCH DRIVE

COMPACT AND STRONG POWER TAKE-OFF CLUTCH DRIVE

Input

- Direct Engine mounting to bell housing J617 SAE 3 to SAE 1 (up to SAE 00 with extender)
- Optional Flexible Engine Coupling

Main Output

- Hydraulic Wet Plate Clutch.
- Max. Transferrable Torques:
 - Clutch Size 55: 3000 Nm
 - Clutch Size 59: 8000 Nm
- Side Load Capacity up to 30 kN (To be calculated based on Application)

Power Take-Off

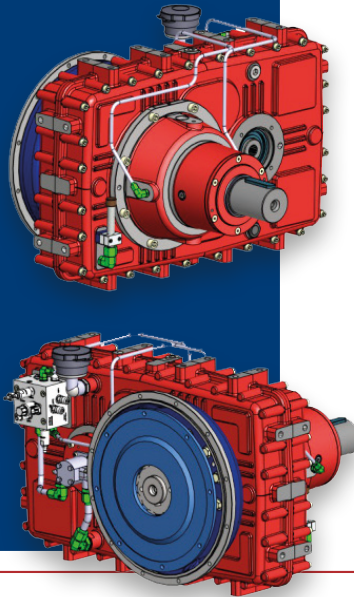
- One PTO #1 SAE B/C/D
- Max. PTO Power 250 kW

Lubrication

- Hydraulic Clutch Control Valve
- Internal oil sump
- Integrated oil pump and pressure lubrication

Optional Accessory

- Clutch Controller with CANbus interface
- Oil-Filter & Cooler



TECHNICAL SPECIFICATIONS

| | |
|--|---|
| Input Power Max. | 896 kW / 1200 hp |
| Input Speed Nom. / Max. | 1600 rpm / 2100 rpm |
| Clutch Size Options Max. Transferrable Torque | Clutch Size 55: 3000 Nm Clutch Size 59: 8000 Nm |
| Input Connection Options | <ul style="list-style-type: none"> • Engine Flange SAE 3 to SAE 1 (standard) • Shaft Connection |
| Main Output | <ul style="list-style-type: none"> • Shaft Ø100 mm with keyway (standard) • Others on request |
| Output Side Load Capacity | Up to 30 kN |
| PTO Connection Options Max. PTO Power 250 kW | <ul style="list-style-type: none"> • Pump Pad SAE B/C/D • Shaft Connection |
| Weight | ~450 kg |

| STANDARD PTO GEAR RATIOS | PTO SPEED @1600 RPM ENGINE | PTO SPEED @1800 RPM ENGINE |
|--------------------------|----------------------------|----------------------------|
|--------------------------|----------------------------|----------------------------|

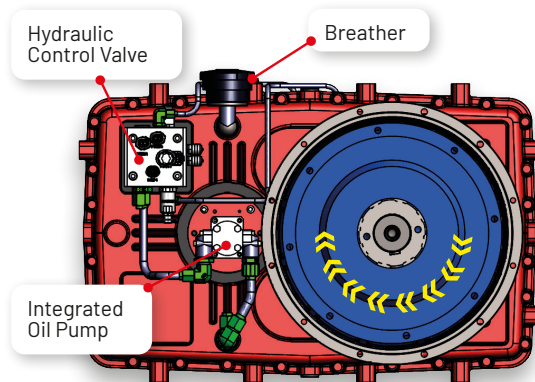
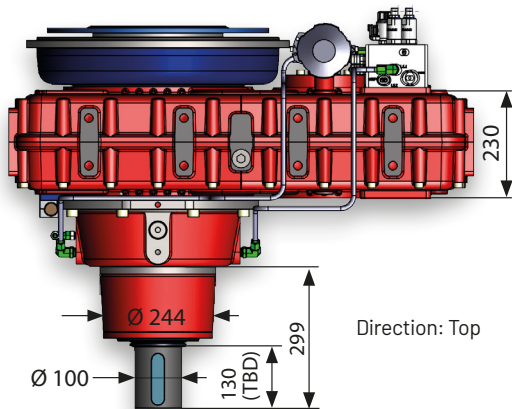
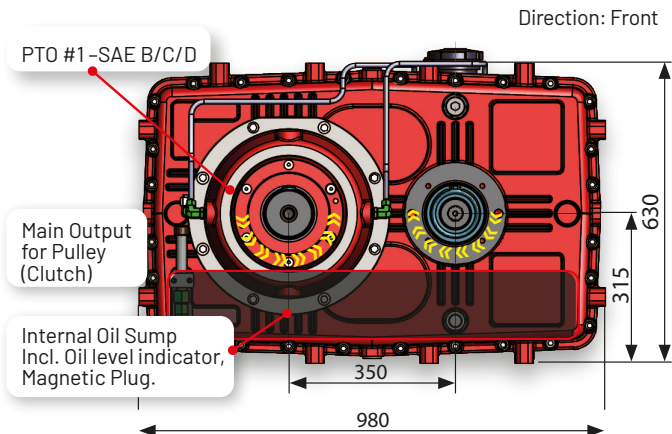
| | | |
|---------|----------|----------|
| 1: 1.90 | 3040 rpm | 3420 rpm |
| 1: 1.51 | 2416 rpm | 2718 rpm |
| 1: 1.39 | 2224 rpm | 2502 rpm |
| 1:1 | 1600 rpm | 1800 rpm |

Other PTO ratios on request!

DIMENSIONS AND TECHNICAL FEATURES

Direction of rotation indicated with arrows

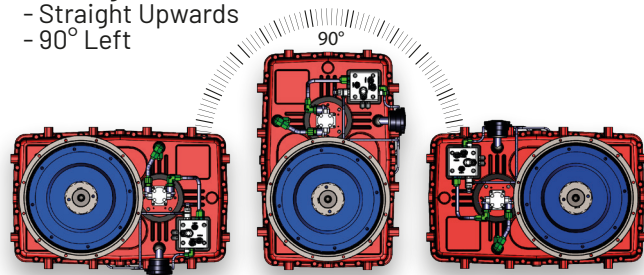
Dimensions in millimetres (mm)



Direction: From Engine

FREE ORIENTATION WITHIN RANGE

- 90° Right
- Straight Upwards
- 90° Left



KATSA™

L350 SHORT PTO CLUTCH

COMPLETE SHORT PTO CLUTCH PACKAGE FOR MOBILE WORKING MACHINES

Input

- Direct Engine mounting to bell housing J617 SAE 3 to SAE 1
- Optional Flexible Engine Coupling

Main Output

- Hydraulic Wet Plate Clutch.
- Max. Transferrable Torques:
 - Size 55: 3000 Nm
- Side Load Capacity up to 30 kN
(To be calculated based on Application)

Power Take-Offs

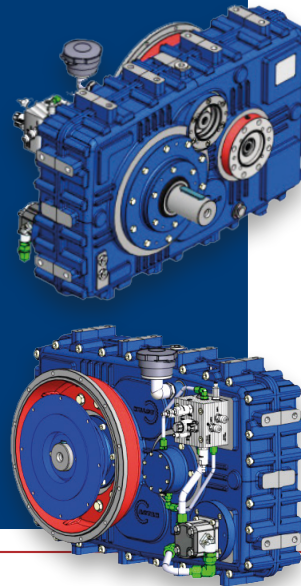
- 2 x PTO's available:
 - #1 SAE B/C
 - #2 SAE A/B
- Max. PTO Power 50 kW each

Lubrication

- Hydraulic Clutch Control Valve
- Internal oil sump
- Integrated oil pump and pressure lubrication

Optional Accessory

- Clutch Controller with CANbus interface
- Oil-Filter & Cooler



TECHNICAL SPECIFICATIONS

| | |
|---|--|
| Input Power Max. | 300 kW |
| Input Speed Nom. / Max. | 1600 rpm / 2100 rpm |
| Clutch Size , Max. Transferrable Torque | Size 55: 3000Nm |
| Input Connection Options | <ul style="list-style-type: none"> • Engine Flange SAE 3 to SAE 1 • Shaft Connection |
| Main Output | <ul style="list-style-type: none"> • Shaft Ø80 mm with keyway (standard) • Others on request |
| Output Side Load Capacity | Up to 30 kN |
| PTO Connection Options Max. PTO Power 50 kW each | <ul style="list-style-type: none"> • Pump Pad SAE B to SAE D • Shaft Connection |
| Weight | ~400 kg |

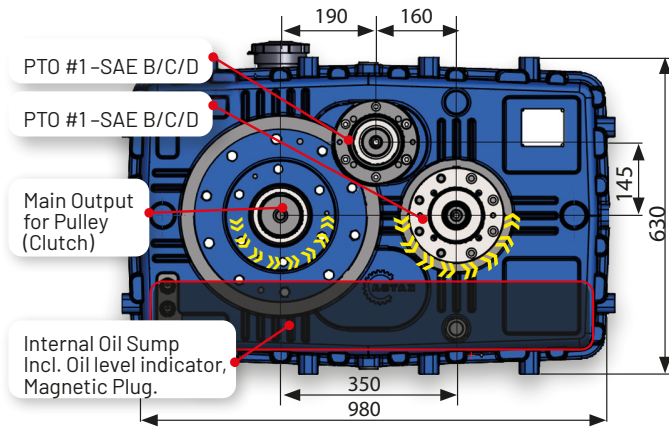
| OUTPUT | GEAR RATIO | OUTPUT SPEED @1600 RPM ENGINE |
|-------------|------------|----------------------------------|
| PTO #1 | 1:1 | 1600 rpm |
| PTO #2 | 1: 0.93 | 1488 rpm |
| Main Output | 1: 1.20 | 1920 rpm |

Other PTO ratios on request!

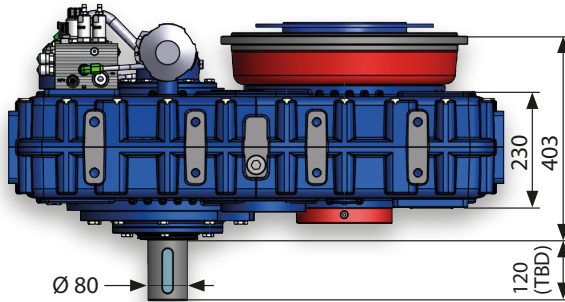
DIMENSIONS AND TECHNICAL FEATURES

Direction of rotation indicated with arrows

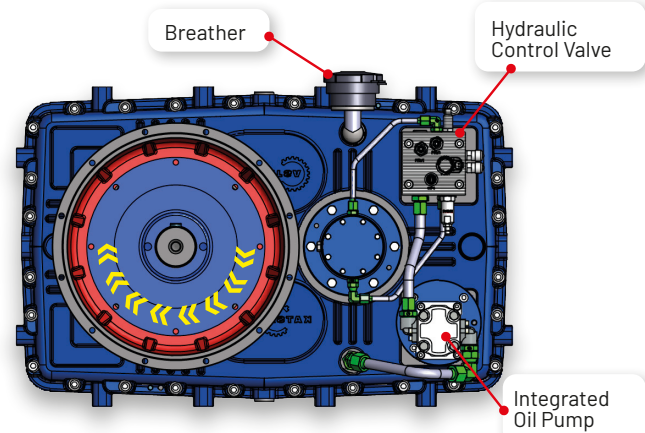
Dimensions in millimetres (mm)



Direction: Front



Direction: Top

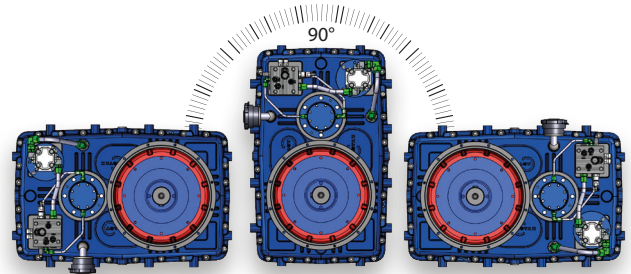


Direction: From Engine

**FREE
ORIENTATION
WITHIN RANGE**

- 90° Right
- Straight Upwards
- 90° Left

Depending on configuration.



KATSA™

L362 PTO CLUTCH DRIVE

COMPACT AND AFFORDABLE POWER TAKE-OFF CLUTCH DRIVE

Input

- Direct Engine mounting to bell housing J617 SAE 3 to SAE 1
- Optional Flexible Engine Coupling

Main Output

- Hydraulic Wet Plate Clutch.
- Max. Transferrable Torques:
 - Clutch Size 55: 3000 Nm
 - Clutch Size 59: 8000 Nm
- Side Load Capacity up to 30 kN
(To be calculated based on Application)

Power Take-Off

- One PTO #1 SAE B/C/D
- Max. PTO Power 200 kW

Lubrication

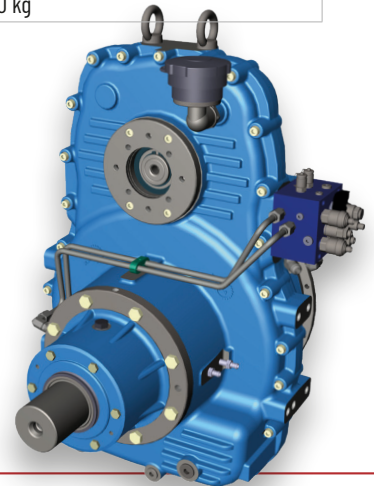
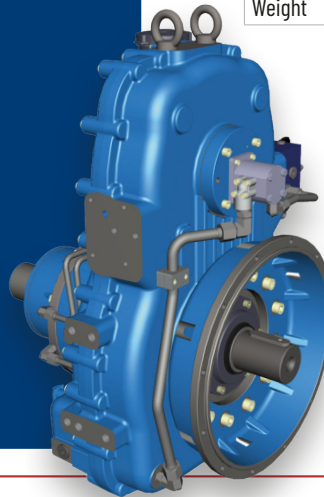
- Hydraulic Clutch Control Valve
- Internal oil sump
- Integrated oil pump and pressure lubrication

Optional Accessory

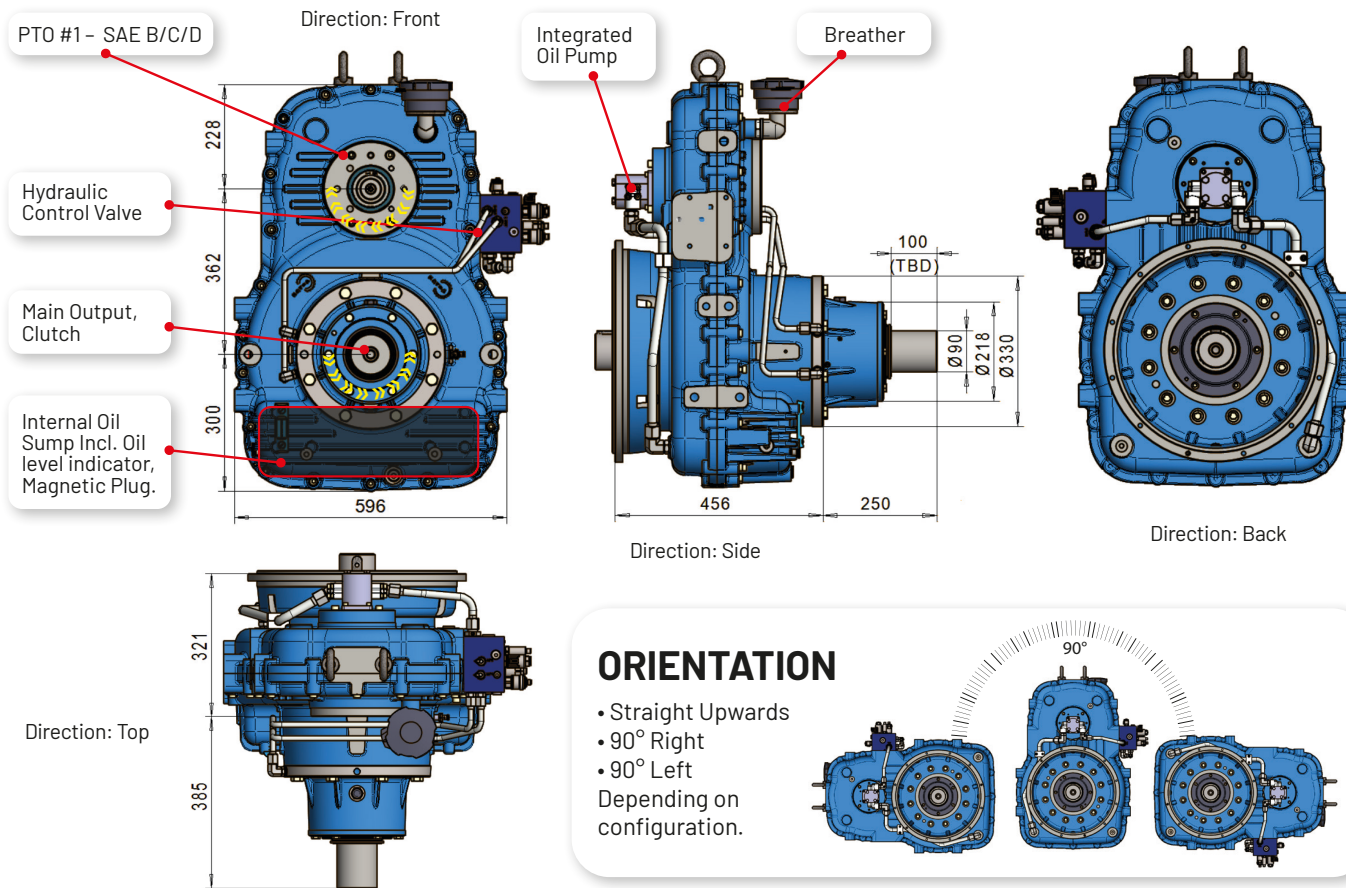
- Clutch Controller with CANbus interface
- Oil-Filter & Cooler

TECHNICAL SPECIFICATIONS

| | |
|--|---|
| Input Power Max. | 500 kW |
| Input Speed Nom. / Max. | 1600 rpm / 2100 rpm |
| Clutch Size OptionsMax. Transferrable Torque | Size 55: 3000 Nm Size 59: 8000 Nm |
| Input Connection Options | • Engine Flange SAE 3 to SAE 1 • Shaft Connection |
| Main Output | • Shaft Ø90 mm with keyway (standard) • Others on request |
| Output Side Load Capacity | Up to 30 kN |
| PTO Connection Options Max. PTO Power 200kW | • Pump Pad SAE B/C/D |
| Weight | ~500 kg |



DIMENSIONS AND TECHNICAL FEATURES • Direction of rotation indicated with arrows • Dimensions in millimetres (mm)



KATSA™ PTO350 STANDARD

COMPLETE TWO TOWER POWER TAKE-OFF CLUTCH DRIVE FOR HEAVY DUTY APPLICATIONS

Input

- Direct Engine mounting to bell housing
- J617 SAE 3 to SAE 0
- Optional Flexible Engine Coupling

Main Output

- Hydraulic Wet Plate Clutch.
- Max. Transferrable Torques:
 - Clutch Size 55: 3000 Nm
 - Clutch Size 59: 8000 Nm
- Side Load Capacity up to 30 kN
(To be calculated based on Application)

Power Take-Offs

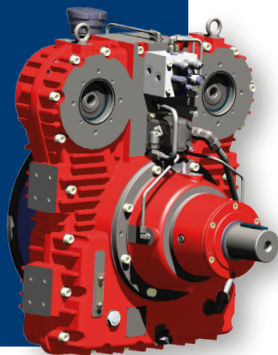
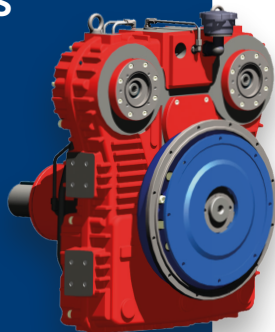
- Two Towers with 4x PTO's available:
 - Front 2x SAE B/C/D/(E)
 - Back 2x SAE B/C
- Max. Combined PTO Power 260 kW

Lubrication

- Hydraulic Clutch Control Valve
- Internal oil sump
- Integrated oil pump and pressure lubrication
- Optional Oil Heating Loop for Fluid Powered Pre-Heater

Optional Accessory

- Clutch Controller with CANbus interface
- Oil-Filter & Cooler



TECHNICAL SPECIFICATIONS

| | |
|---|---|
| Input Power Max. | 896 kW / 1200 hp |
| Input Speed Nom. / Max. | 1600 rpm / 2100 rpm |
| Clutch Size, Max. Transferrable Torque | Clutch Size 55: 3000 Nm Clutch Size 59: 8000 Nm |
| Input Connection Options | • Engine Flange SAE 3 to SAE 0 • Shaft Connection |
| Main Output | • Shaft Ø100 mm with keyway (standard) • Others on request |
| Output Side Load Capacity | Up to 30 kN |
| PTO Connection Options Max. Combined Power 260 kW | • Pump Pad SAE B to SAE D (E) • Shaft Connection |
| Weight | ~720kg |

| STANDARD PTO GEAR RATIOS | PTO SPEED @1600 ENGINE | PTO SPEED @1800 RPM ENGINE |
|--------------------------|------------------------|----------------------------|
|--------------------------|------------------------|----------------------------|

| | | |
|----------|----------|----------|
| 1: 1.667 | 2667 rpm | 3000 rpm |
| 1:1.433 | 2293 rpm | 2580 rpm |
| 1: 1.303 | 2085 rpm | 2345 rpm |
| 1: 1.182 | 1891 rpm | 2127 rpm |
| 1: 1 | 1600 rpm | 1800 rpm |
| 1: 0.902 | 1444 rpm | 1624 rpm |

Other ratios on request!

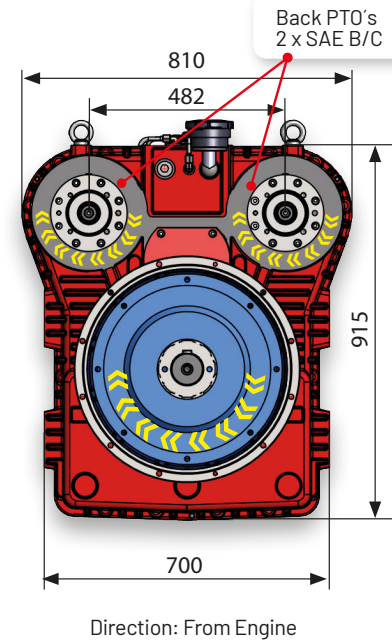
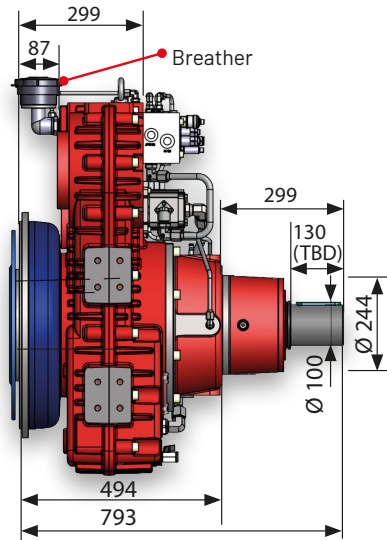
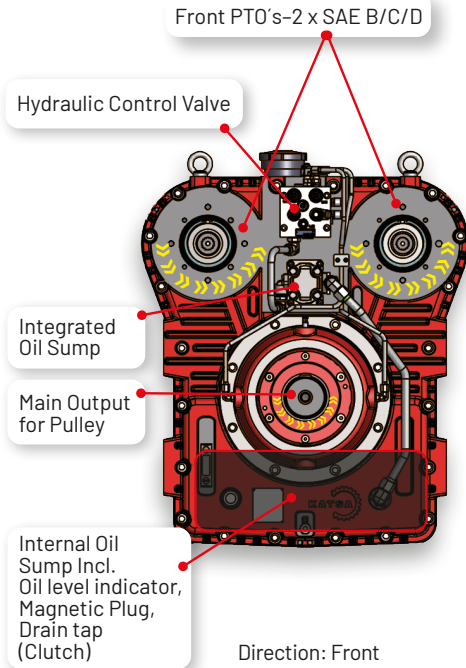
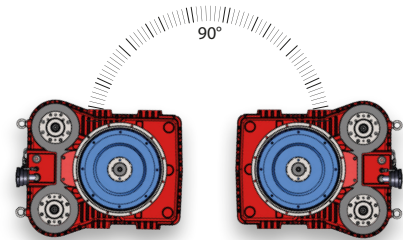
DIMENSIONS AND TECHNICAL FEATURES

Direction of rotation indicated with arrows

Dimensions in millimetres (mm)

ORIENTATION

- Max. tilt 90° Degrees
- Left or Right
- Tilting not allowed in Front -Rear direction



KATSA™ PT0350 XP

STRONG, RELIABLE AND EFFICIENT HYDRAULIC PTO CLUTCH DRIVE FOR HEAVY DUTY DIRECT DRIVEN WORKING MACHINES!

Input

- Direct Engine mounting to bell housing J617 SAE 1 to SAE 0
- Optional Flexible Engine Coupling

Power Take-Offs

- Two Towers with 4 x PTO's available:
 - Front 2x SAE B/C/D/(E)
 - Back 2x SAE B/C
- Max. Combined PTO Power 410 kW / 550 hp @ 1800 rpm

Main Output

- Transferrable Torque 8000 Nm
- Side Load Capacity up to 65 kN
(To be calculated based on Application)
- Integrated Parking Brake

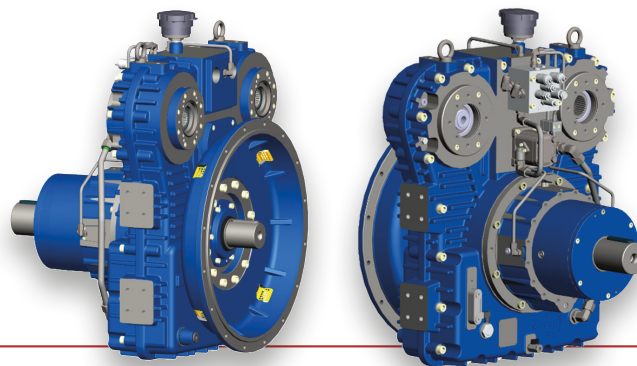
Lubrication

- Integrated Lubrication System including Oil-Pump
- Oil-Sump and Fixed Piping
- Optional Oil Heating Loop for Fluid Powered Pre-Heater

Optional Accessory

- Clutch Controller with CANbus interface
- Oil-Filter & Cooler

| TECHNICAL RATING | |
|--|---|
| Input Power Max. | 896 kW 1200 HP |
| Input Speed Nom. / Max. | 1800 rpm / 2100 rpm |
| Input Connection | Engine Flange J617 SAE 0 and SAE 1 Optional Shaft Connection |
| Main Output Connection | Shaft Ø100 mm with keyway (standard) Others on request |
| Clutch Size Options Max. Transferrable Torque | Clutch Size 59: 8000 Nm |
| PTO's | Front 2x SAE A/B/C/D/EBack 2xSAE B/C |
| PTO Power | Total Max 550 hp / 405 kW @ 1800 rpm Single Pad Max 450 hp / 330 kW @ 1800 rpm |
| PTO Gear Ratios, Standard | 1 : 1 1 : 1.18 (Speed increasing) |
| Side Load Capacity | Up to 65 kN (To be calculated based on Application) |

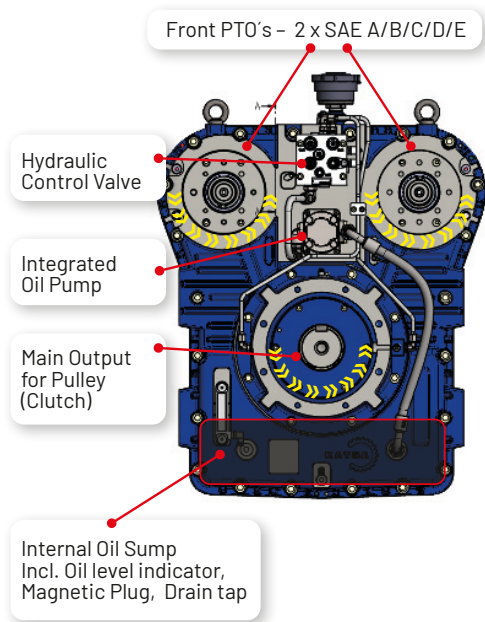


DIMENSIONS AND TECHNICAL FEATURES

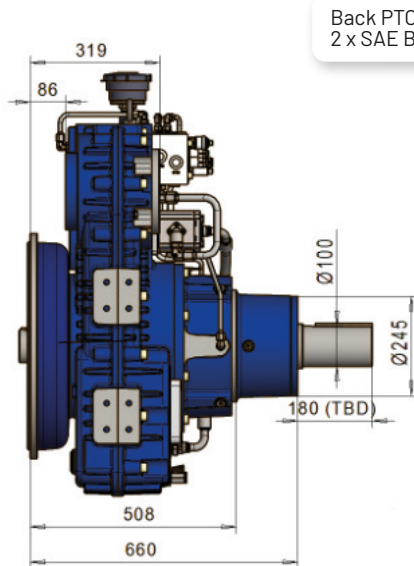
Direction of rotation indicated with arrows
Dimensions in millimetres (mm)

ORIENTATION

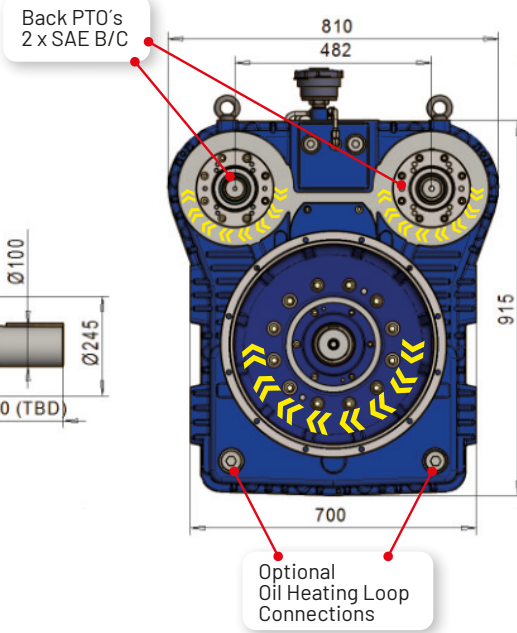
Upright or tilted 45°/ 90° Degrees Left or Right
Tilting not allowed in Front – Rear direction



Direction: Front



Direction: Side



Direction: From Engine

KATSA™

2L350 HORIZONTAL PTO CLUTCH

HORIZONTAL PTO CLUTCH PACKAGE FOR MOBILE WORKING MACHINES

Input

- Direct Engine mounting to bell housing J617 SAE 3 to SAE 1
- Optional Flexible Engine Coupling

Main Output

- Hydraulic Wet Plate Clutch.
- Max. Transferrable Torques:
 - Clutch Size 55: 3000 Nm
 - Clutch Size 59: 8000 Nm
- Side Load Capacity up to 30 kN
(To be calculated based on Application)

Power Take-Off's

- 2 x PTO Options:
 - SAE B/C/D/(E) for Hydraulic Pump
 - Generator Shaft Output
- Max. PTO Power 200 kW each

Lubrication

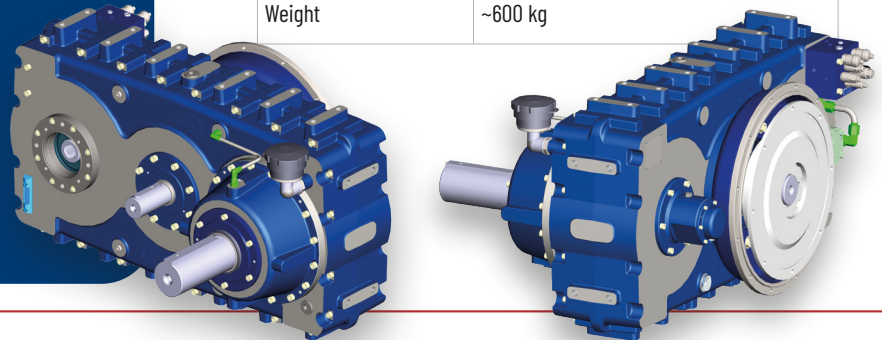
- Hydraulic Clutch Control Valve
- Internal oil sump
- Integrated oil pump and pressure lubrication

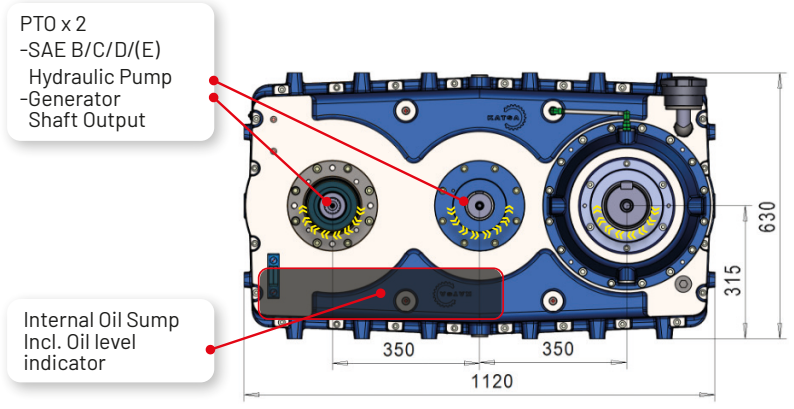
Optional Accessory

- Clutch Controller with CANbus interface
- Oil-Filter & Cooler

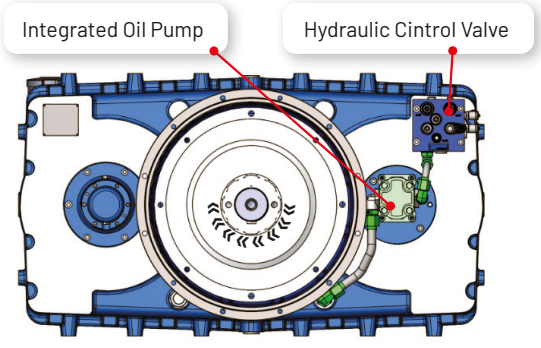
TECHNICAL SPECIFICATIONS

| | |
|---|--|
| Input Power Max. | 600 kW |
| Input Speed Nom. / Max. | 1600 rpm / 2100 rpm |
| Clutch Size OptionsMax. Transferrable Torque | Clutch Size 55: 3000 Nm Clutch Size 59: 8000 Nm |
| Input Connection Options | Engine Flange SAE 3 to SAE 1 |
| Main Output | • Shaft Ø100 mm with keyway (standard) • Others on request |
| Output Side Load Capacity | Up to 30 kN |
| PTO Connection Options Max. PTO Power 200 kW each | • Pump Pad SAE B to SAE D (E) • Generator Shaft Connection |
| Gear Ratio | 1 : 1 Engine to All Outputs |
| Weight | ~600 kg |

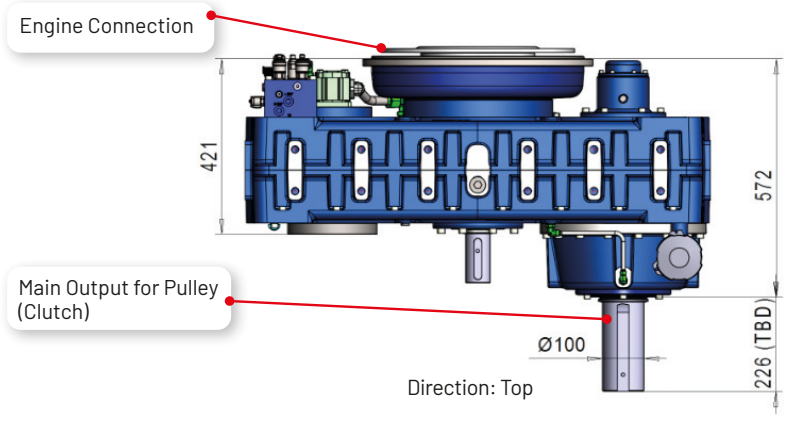




Direction: Front



Direction: From Engine



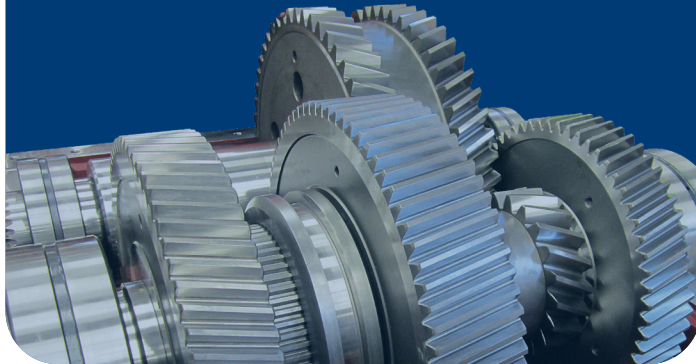
Direction: Top

DIMENSIONS AND TECHNICAL FEATURES
 Direction of rotation indicated with arrows
 Dimensions in millimetres (mm)

KATSA™ CONTROL ACCESSORY

KATSA™ CLUTCH CONTROL UNIT

- Katsa™ Clutch Control Unit is designed to ensure smooth clutch engagement, trouble-free & safe usage and extended lifetime for Katsa's PTO Clutches.
- Control includes software-based and flexibly adjustable parameters for monitoring critical values from Clutch Input and Output sides as well as lubrication diagnostics.
- Control Unit communicates with CANbus on standard protocols SAE J1939 and CANopen.

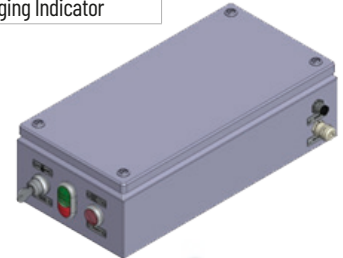


CONTROL UNIT PARAMETERS

| | |
|----------------------------|---|
| Speed | Input (rpm) Clutch/Output (rpm) |
| Lubrication/ Hydraulics | Lubrication Oil-Pressure (bar) Clutch Oil-Pressure (bar) Oil Temperature (°C) |
| Optional | Oil Level Indication Oil Filter Clogging Indicator |

CONTROL TERMINAL CABINET

- Including Local Control



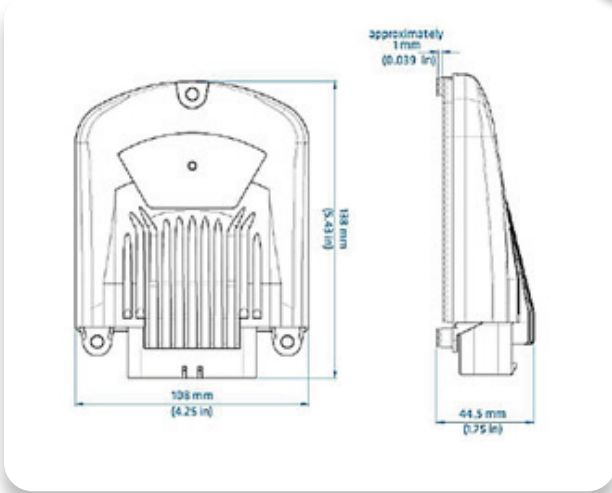
OPTIONAL ACCESSORY

EXTERNAL CLUTCH CONTROL

- For Operator Panel or Control Bridge.



| MAIN CONTROLLER | |
|------------------|---------------------|
| Dimensions | 138 x 108 x 44,5 mm |
| Weight | 0,44 kg |
| Temperatures | -40 ... +85 °C |
| Protection Class | IP67 |
| Power Supply | 12/24 VDC M12 5-Pin |



Lubrication system accessory

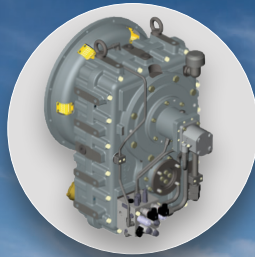
- Oil Filter with Clogging Indicator
- Oil Level Indicator
- Oil Cooler

 A photograph of a blue oil cooler component, which is a cylindrical metal unit with blue painted end caps and mounting brackets.

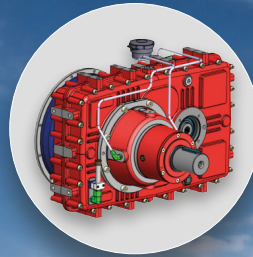
KATSA™
L250 CLUTCH



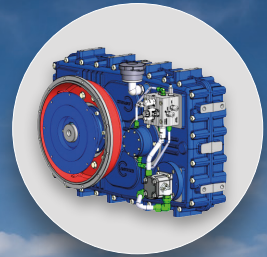
KATSA™
L250 REVERSE CLUTCH



KATSA™
L350 PTO CLUTCH DRIVE

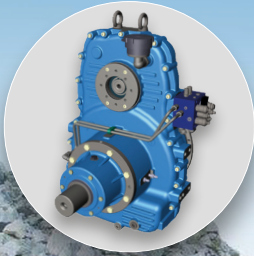


KATSA™
L350 SHORT PTO CLUTCH

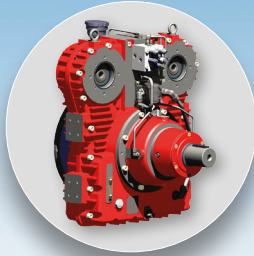


**KATSA™ CLUTCH DRIVES – MOST ADVANCED TECHNOLOGY
FOR YOUR WORKING MACHINE!**

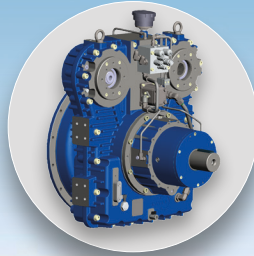
KATSA™
L362 PTO CLUTCH DRIVE



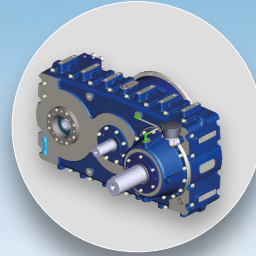
KATSA™
PTO350 STANDARD



KATSA™
PTO350 XP



KATSA™
2L350 HORIZONTAL PTO CLUTCH



**KATSA™ CLUTCH DRIVES – HIGHEST EFFICIENCY
AND RELIABILITY FOR DECADES!**

THE TWIN DISC FAMILY OF PRODUCTS



KATSA OY • TAMPERE, FINLAND • +358 3 315 151 • KATSAGEARS@KATSA.FI

KATSA.FI/EN • TWINDISC.COM • ©2025 TWIN DISC, INC • 2501_BROCHURE_DRIVETRAINGEARBOXES

USA • AUSTRALIA • BELGIUM • CHINA • FINLAND • INDIA • ITALY • JAPAN • NETHERLANDS • SINGAPORE • SWITZERLAND

