

High Torque  
Spindle Motors  
**GM Range**



**KESLER**

**REDEX**  
The Machine Tool Drives Company



# GM Range High Torque spindle motors

## State-of-the art technology

**GM** was developed by **KESSLER** and **REDEX**, worldleaders in machine-tool systems, to offer high performance hollow shaft liquid cooled motors. These motors integrate a gearbox allowing high-torque and high-speed in a record diameter.

**GM** range goes from 800 up to 10 000 Nm in 6 different sizes with a top speed of 12 000 rpm. Hollow shaft diameter goes from 29 to 60 mm.

**GM** motor range has been optimized for performance and reliability. Mechatronics integration avoids redundant bearings and interfaces in order to achieve compactness, large hollow shaft for easy integration, and thermal stability. Speed changer, cooling and encoder feedback are conveniently located at the back of the motor.

**GM** range relies on several worldwide patents. It is the result of a partnership between 2 European trend setters in machine-tool systems.

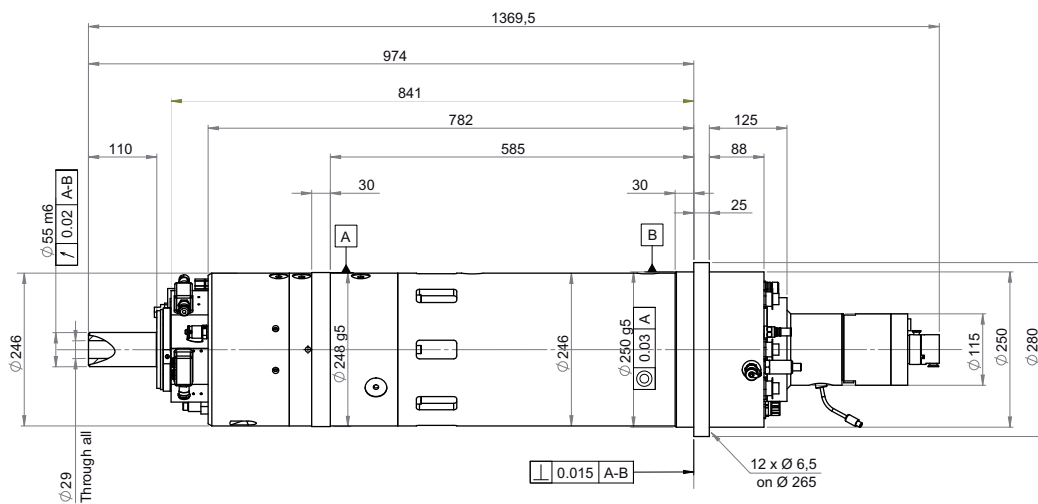
**GM** are fully compatible with conventional control systems. Options such as rotary unions, clamping systems, encoders or spindle heads, round off the portfolio.

**GM** are the most technically advanced solution for high performance milling spindles. They are the ideal choice for spindle dedicated to hard material milling and for achieving high productivity in a constrained environment.



# High Torque Spindle Motors

## GM800



Dimensions and main data for information only, please consult us and/or refer to Product DataSheet

### Technical features

<b>Torque S1</b>	[Nm]	760	<b>Interface</b>	[Nm]	plain shaft
<b>Torque S6 (40 %)</b>	[Nm]	1130	<b>Cooling/Flow rate</b>	[l/mn]	25
<b>Power S1</b>	[kW]	24	<b>Cooling/Loss power</b>	[kW]	6
<b>Power S6 (40 %)</b>	[kW]	35	<b>Bearings lubrication</b>		grease
<b>Speed</b>	[rpm]	12000	<b>Lubrication/Flow rate</b>	[l/mn]	1.5
<b>Motor type</b>		asynchronous	<b>Lubrication/Loss power</b>	[kW]	0.45
<b>Mounting position</b>		vertical and horizontal	<b>Speed shifting/Pressure</b>	[bar]	50 to 100
<b>Control</b>		Siemens/Fanuc/Heidenhain	<b>Speed shifting/Flow rate</b>	[l/mn]	5 to 7

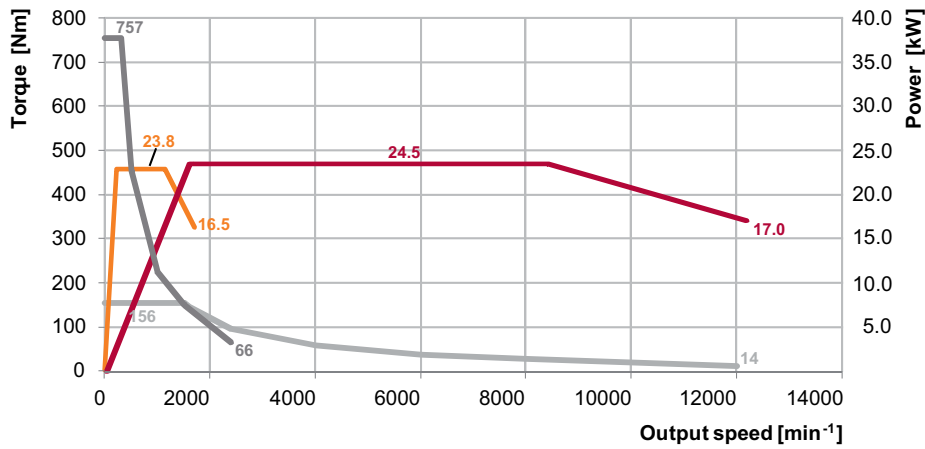
### Options

<b>rotary union</b>	flow rate max 80l/mn - max speed 15000 rpm
<b>clamping system</b>	stroke 17 mm, with sensor
<b>spindle head</b>	contact us

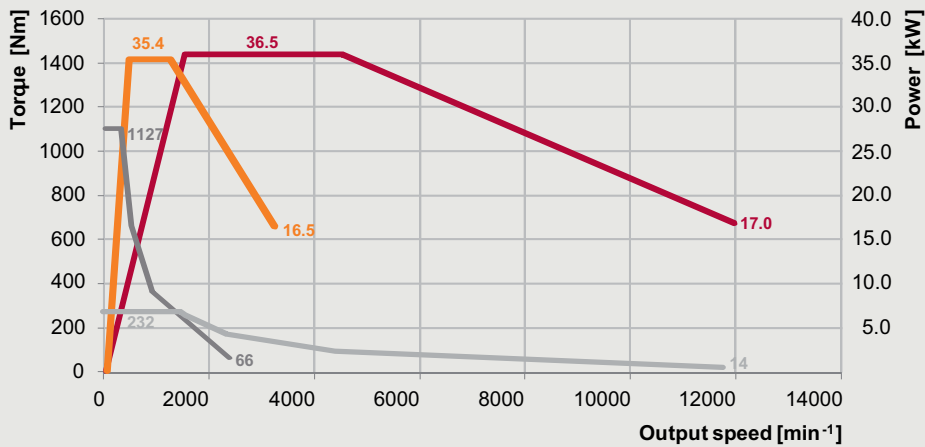


REDEX

Service S1 - 100%



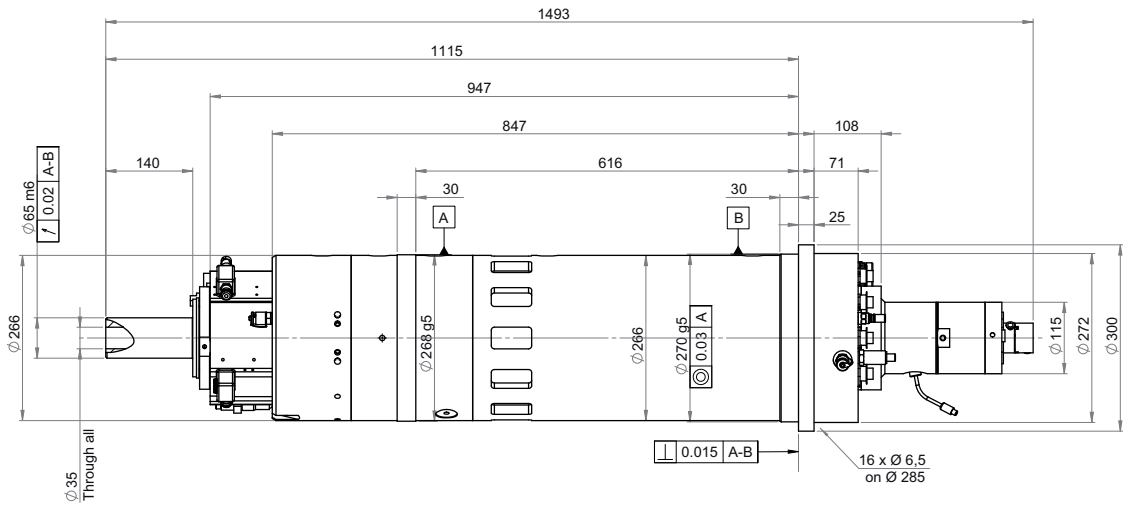
Service S6 - 40%



Ratio	Torque	Power
1:1	Grey line	Red line
5:1	Dark grey line	Orange line



# GM1300



Dimensions and main data for information only, please consult us and/or refer to Product DataSheet

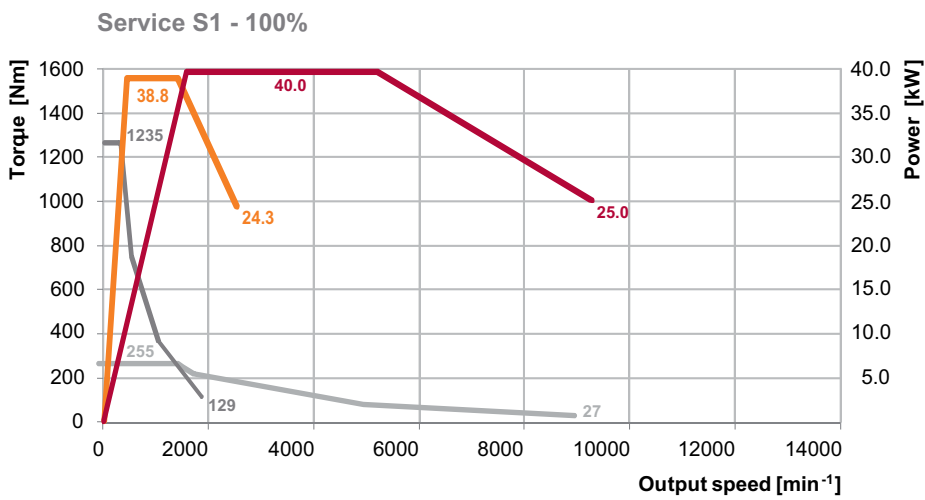
## Technical features

<b>Torque S1</b>	[Nm]	1240	<b>Interface</b>	[Nm]	plain shaft
<b>Torque S6 (40 %)</b>	[Nm]	1850	<b>Cooling/Flow rate</b>	[l/mn]	33
<b>Power S1</b>	[kW]	39	<b>Cooling/Loss power</b>	[kW]	7,5
<b>Power S6 (40 %)</b>	[kW]	58	<b>Bearings lubrication</b>		grease
<b>Speed</b>	[rpm]	9000	<b>Lubrication/Flow rate</b>	[l/mn]	2
<b>Motor type</b>		synchronous	<b>Lubrication/Loss power</b>	[kW]	0.65
<b>Mounting position</b>		vertical and horizontal	<b>Speed shifting/Pressure</b>	[bar]	50 to 100
<b>Control</b>		Siemens/Fanuc/Heidenhain	<b>Speed shifting/Flow rate</b>	[l/mn]	5 to 7

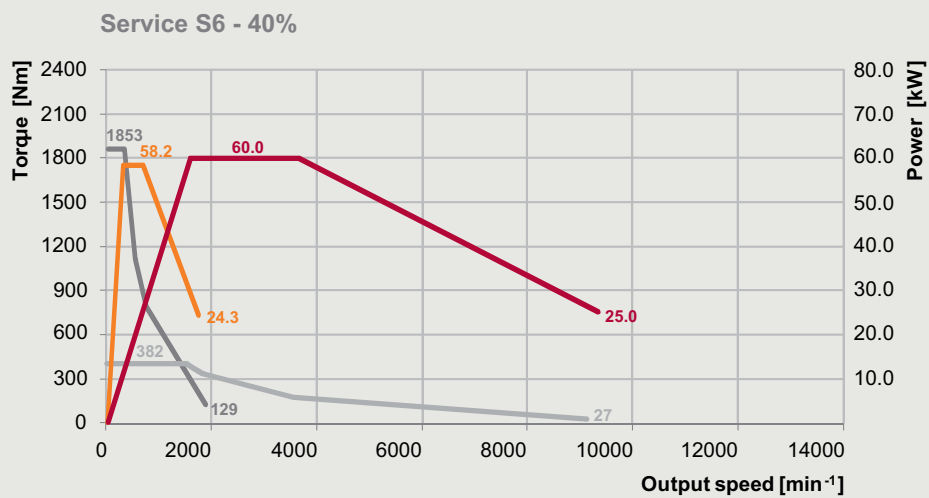
## Options

<b>rotary union</b>	flow rate max 80l/mn - max speed 15000 rpm
<b>clamping system</b>	stroke 17 mm, with sensor
<b>spindle head</b>	contact us



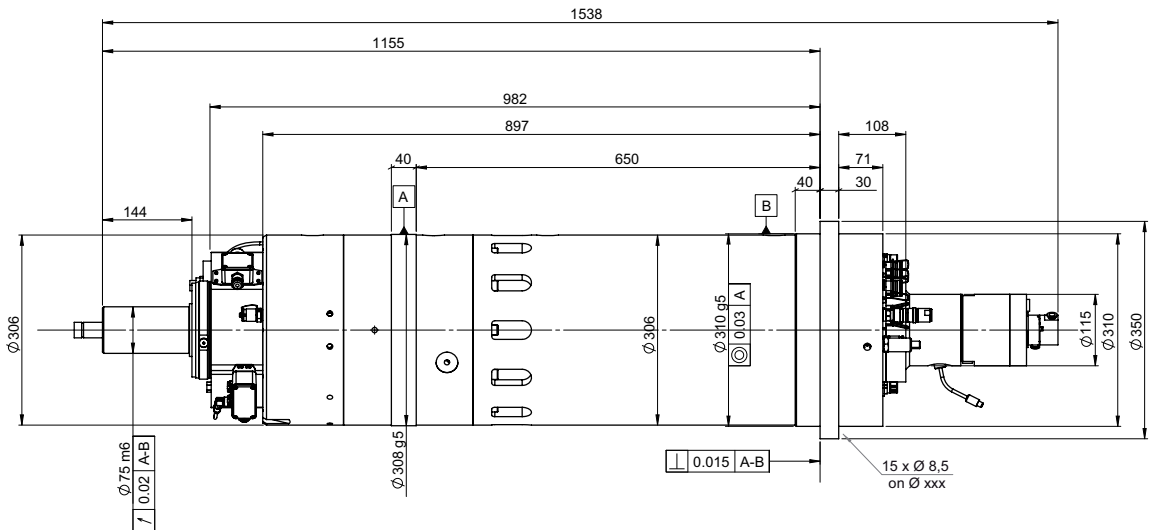


Ratio	Torque	Power
1:1	— (grey)	— (red)
5:1	— (dark grey)	— (orange)



# High Torque Spindle Motors

# GM2000



Dimensions and main data for information only, please consult us and/or refer to Product DataSheet

## Technical features

<b>Torque S1</b>	[Nm]	1830	<b>Interface</b>	[Nm]	plain shaft
<b>Torque S6 (40 %)</b>	[Nm]	2460	<b>Cooling/Flow rate</b>	[l/mn]	36
<b>Power S1</b>	[kW]	58	<b>Cooling/Loss power</b>	[kW]	7,65
<b>Power S6 (40 %)</b>	[kW]	78	<b>Bearings lubrication</b>		grease
<b>Speed</b>	[rpm]	8000	<b>Lubrication/Flow rate</b>	[l/mn]	2,5
<b>Motor type</b>		asynchronous	<b>Lubrication/Loss power</b>	[kW]	0.75
<b>Mounting position</b>		vertical and horizontal	<b>Speed shifting/Pressure</b>	[bar]	50 to100
<b>Control</b>		Siemens/Fanuc/Heidenhain	<b>Speed shifting/Flow rate</b>	[l/mn]	8 to 10

## Options

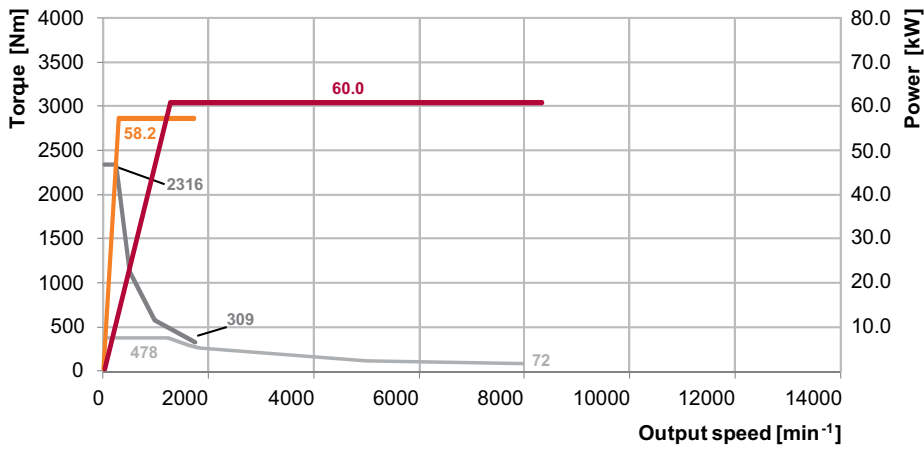
<b>rotary union</b>	flow rate max 80l/mn - max speed 15000 rpm
<b>clamping system</b>	stroke 17 mm, with sensor
<b>spindle head</b>	contact us



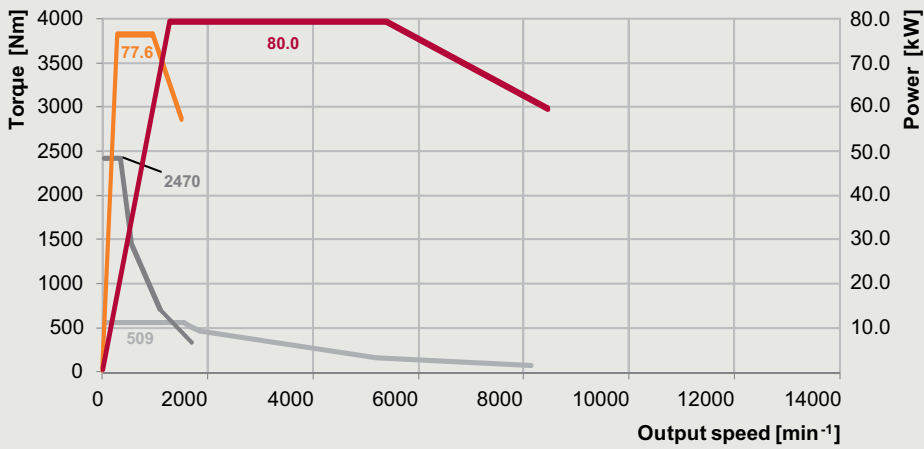
REDEX



Service S1 - 100%



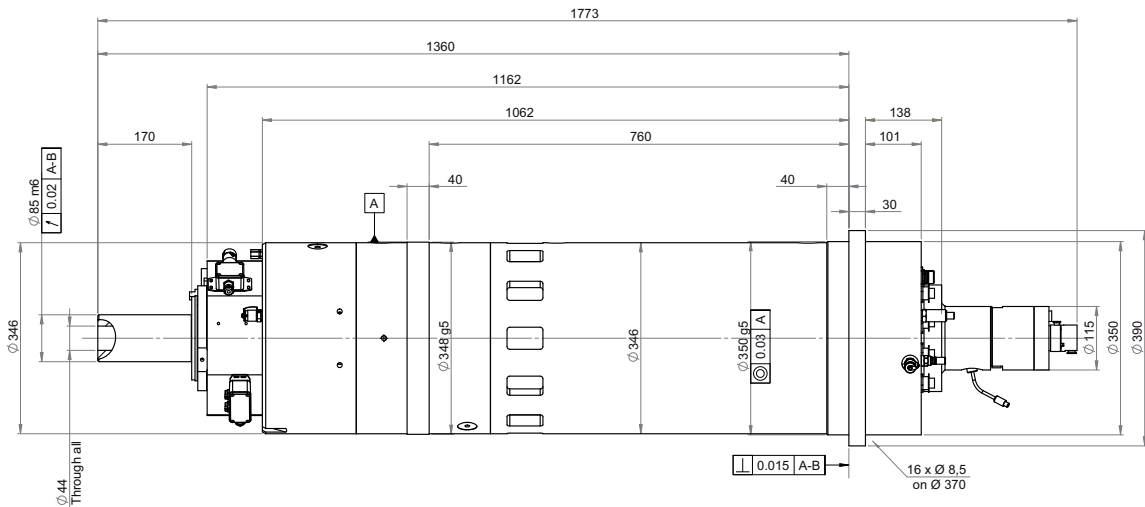
Service S6 - 40%



Ratio	Torque	Power
1:1	— (grey)	— (red)
5:1	— (dark grey)	— (orange)



# GM3000



Dimensions and main data for information only, please consult us and/or refer to Product DataSheet

## Technical features

<b>Torque S1</b>	[Nm]	2900
<b>Torque S6 (40 %)</b>	[Nm]	3240
<b>Power S1</b>	[kW]	91
<b>Power S6 (40 %)</b>	[kW]	102
<b>Speed</b>	[rpm]	7000
<b>Motor type</b>		asynchronous
<b>Mounting position</b>		vertical and horizontal
<b>Control</b>		Siemens/Fanuc/Heidenhain

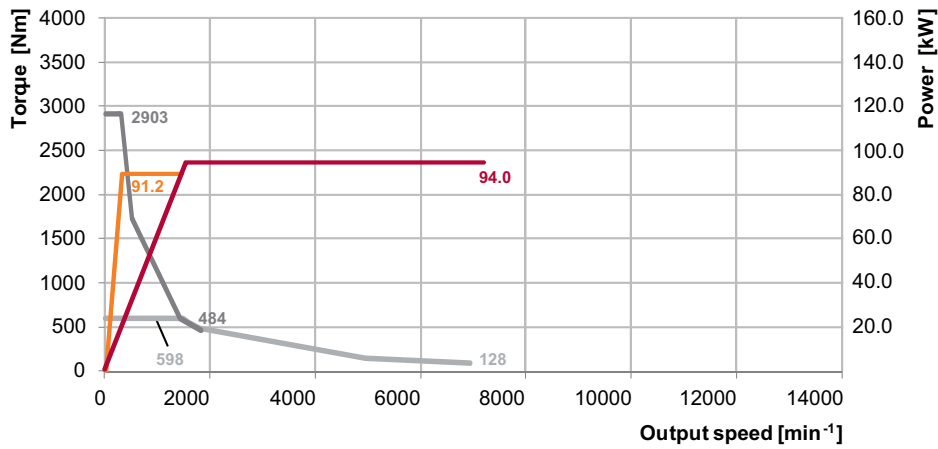
<b>Interface</b>	[Nm]	plain shaft
<b>Cooling/Flow rate</b>	[l/mn]	36
<b>Cooling/Loss power</b>	[kW]	7,5
<b>Bearings lubrication</b>		grease
<b>Lubrication/Flow rate</b>	[l/mn]	3
<b>Lubrication/Loss power</b>	[kW]	1
<b>Speed shifting/Pressure</b>	[bar]	50 to 100
<b>Speed shifting/Flow rate</b>	[l/mn]	8 to 10

## Options

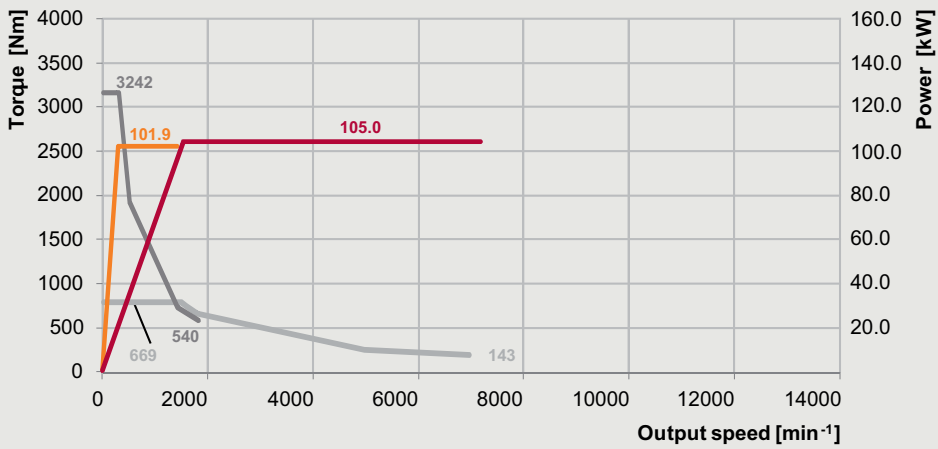
<b>rotary union</b>	flow rate max 80l/mn - max speed 15000 rpm
<b>clamping system</b>	stroke 17 mm, with sensor
<b>spindle head</b>	contact us



Service S1 - 100%



Service S6 - 40%



Ratio	Torque	Power
1:1	— (grey)	— (red)
5:1	— (dark grey)	— (orange)

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