



Previous Name: **Shell Tonna T**

Shell Tonna S2 M

Machine tool slideway oils

- **EXTRA SEPARATION FROM COOLANTS**
- **STANDARD APPLICATIONS**

Shell Tonna S2 M oils are specially designed for the lubrication of machine tool slides, tables and feed mechanisms. Their enhanced tackiness and stick-slip characteristics combine to offer superior frictional performance on slideways. They are specially recommended in cases where high exposure to soluble cutting fluids exist.

Performance Benefits

- **Ready separation from water-miscible cutting fluids**
Separates completely and immediately from water-miscible metalworking fluids allowing easy removal by skimming. This helps to achieve longer coolant life, better cutting performance and to reduce Health & Safety issues.
- **Good slideway adhesion**
Provides very effective adhesion to slideway surfaces, resisting wash-off by metalworking fluids and thus reducing oil consumption and giving more uniform working condition for the machine.
- **Good frictional properties**
“Stick-slip” problems are overcome allowing more accurate positioning. This provides benefits of improved finished surface quality and dimensional accuracy of work pieces.
- **Good anti-wear performance**
Provides anti-wear protection for slideways, gears, bearings and hydraulic system components.
- **Excellent corrosion prevention characteristics**
Provides effective prevention of machine tool surfaces and components in the presence of water-miscible cutting fluids.

Applications

- **Machine tool slideways, tables and feed mechanisms**
Developed for use on a wide range of materials used for machine tool slideway surfaces, including cast iron and synthetic materials.

Shell Tonna S2 M oils can be used also in the hydraulic and gearboxes system although in such applications Shell Tonna S3 M oils are generally preferable.

The lower viscosity grades are intended for horizontal slide lubrication (Shell Tonna S2 M 32 or 68). For vertical slides use Shell Tonna S2 M 220.

Specifications and Approvals

Shell Tonna S2 M oils meet the following specifications:
ISO 19378 / ISO 6743-13 GA and GB
DIN CGLP
Cincinnati Machine P-50 (ISO 220), P-47 (ISO 68), P-53 (ISO 32)



Health and Safety

Guidance on Health and Safety is available on the appropriate Material Safety Data Sheet, which can be obtained from your Shell representative.

Protect the Environment

Take used oil to an authorized collection point. Do not discharge into drains, soil or water.

Advice

Advice on applications not covered in this leaflet may be obtained from your Shell representative.

Typical Physical Characteristics

Shell Tonna S2 M	32	68	220
ISO Viscosity Grade (ISO 3448)	32	68	220
Kinematic Viscosity (ISO 3104) @ 40°C mm ² /s 100°C mm ² /s	32 5.4	68 8.6	220 19.1
Viscosity Index (ISO 2909)	100	98	98
Density @ 15°C kg/m ³ (ISO 12185)	870	879	894
Flash Point °C (Cleveland Open Cup) (ISO 2592)	215	225	250
Pour Point °C (ISO 3016)	-30	-24	-15

These characteristics are typical of current production. Whilst future production will conform to Shell's specification, variations in these characteristics may occur.