

SL Series

Portable machine for grinding and lapping of sealing faces in gate valves, gates and flanges

DN 20 – 2000 mm

3/4" - 80"



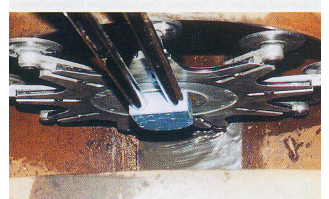
SL – 05

SL – 1

SL – 15

SL – 2

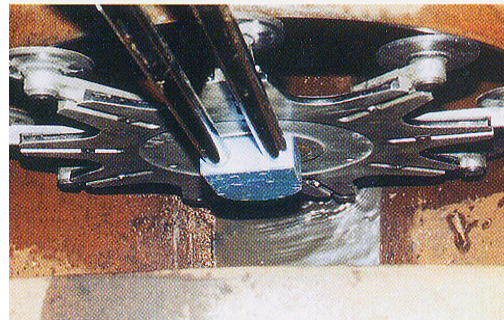
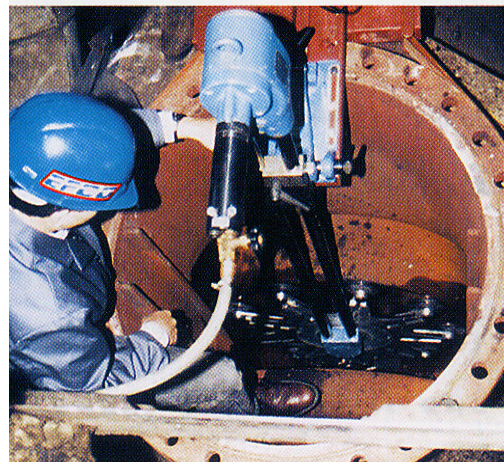
SL – 3



Employing tomorrow's technology to machine today's valves

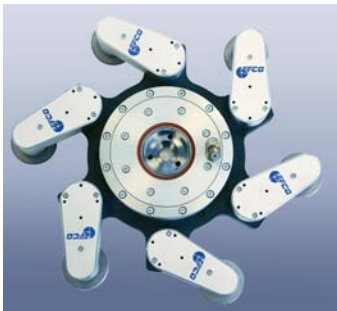
EFCO – SL - AN IMPRESSIVE CONCEPT

- **Wide-ranging** use in conventional power stations, nuclear power stations, refurbishment companies, refineries, chemical plants, shipyards, sugar mills, paper mills, on ships, by valve manufacturers and many others.
- **Long life due to the use of:**
 - High-quality materials
 - Powerful drives
 - Wear-resistant tools
 - Stable light-weight design
- **Good price/performance ratio**
- **Flexible use** of machine by means of various tool sets and accessories
- **Use independent of:**
 - Width and hardness of sealing faces to be machined
 - Installation position of fitting (horizontal, vertical)
 - Type of fitting (with or without sealing flange, oval or round)
- **Universal installation systems** enable:
 - Safe installation
 - Simple handling
 - Fast adjustment
 - Drives can be fitted on both sides and replaced quickly
 - Any insertion depth can be set.

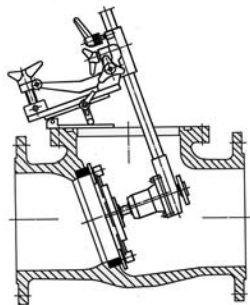


- **The rocker** - precision element to:
 - Mount the machine arm
 - Set the insertion depth
 - Easy to install
 - Fast fine adjustment at side
 - Setting of working pressure
 - Easy repeatability of optimum working pressure by fitting the digital display (optional)
 - Worldwide patent.

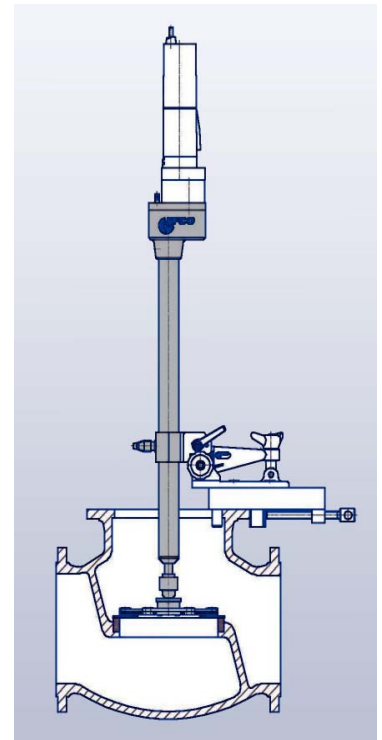
- **Swing-Check Adapter**
Accessory for machining the sealing faces of non-return valves with large angle.
- **VB Device**
Additional arm for grinding and lapping sealing faces in valve housings.
- **EFCO-SLA**
Planetary gear with driven grinding spindles. Significantly increased performance - thus shorter machining times.



EFCO-SLA



Swing-Check Adapter



SL-15 with VB Device

WELL THOUGHT-OUT MACHINING TECHNOLOGY

Grinding (dry grinding)

- Using hardened and lapped grinding spindles and self-adhesive grinding paper or grinding film rings.
- On rotation of the planetary gear, the grinding spindles, which are guided in ball bearings, rotate around their own axis => optimum cross-hatch grinding.
- GSS - high-performance grinding disks for the removal of large-scale damage and use in hot valves.
- Optimum material removal.

Lapping

- With grey iron lapping spindles.
- Lapping pastes in various grain sizes.



Optimum material removal due to:

- High quality, self-adhesive, water-proof grinding papers and grinding films.
- Oil soluble lapping pastes based on boron carbide.

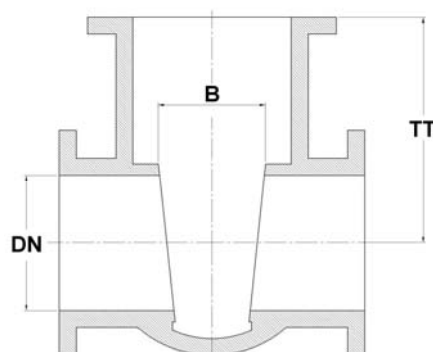
EFCO-SL - The Complete Solution

The SL machines, as do all EFCO products, provide a complete repair system.

Specification	SL-05	SL-1	SL-15	SL-2	SL-3
Nominal bore (DN - mm)					
Standard	20-65 (3/4"-2 1/2")	32-150 (1 1/4"-6")	40-300 (1 1/2"-12")	200-700 (8"-28")	500-1600 (20"-64")
Special up to	80 (3")	200 (8")	450 (18")	900 (36")	2000 (80")
Immersion depth (mm) TT					
Standard	250 (9.8")	400 (15.7")	600 (23.6")	1000 (39.4")	1200 (47.2")
Special up to	400 (15.7")	600 (23.6")	1200 (47.2")	1600 (62.9")	2200 (86.6")
Min. spacing B	15 (0.59")	28 (1.1")	41 (1.6")	69 (2.7")	102 (4")
Drive	electric 230/110 V, 50/60Hz or pneumatic 6-7 bar				



EFCO SL-2



SL-15 machine case

Subject to technical change.

EFCO Maschinenbau GmbH – Valve repair and testing equipment

Otto-Brenner-Straße 5 – 7 • D - 52353 Düren • Phone: +49-(0)2421-989-0 • Fax: +49-(0)2421-86260

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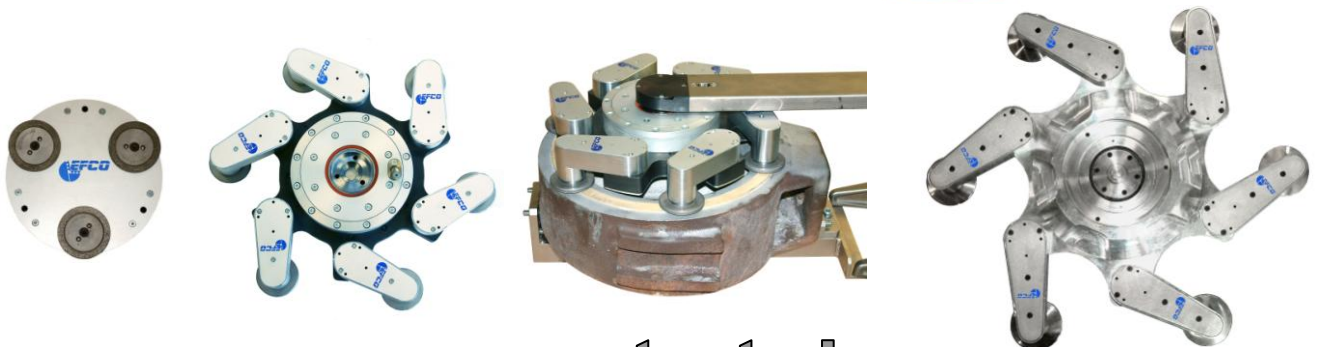
HSL-15 / HSL-2

Portable High-Speed Gate Valve Grinder
for the repair of sealing surfaces of gate valves and wedges

HSL-15 DN 175-400 mm (DN 7"-16")

HSL-2 DN 225-600 mm (DN 9"-24")

**Huge time savings
up to 90% !**



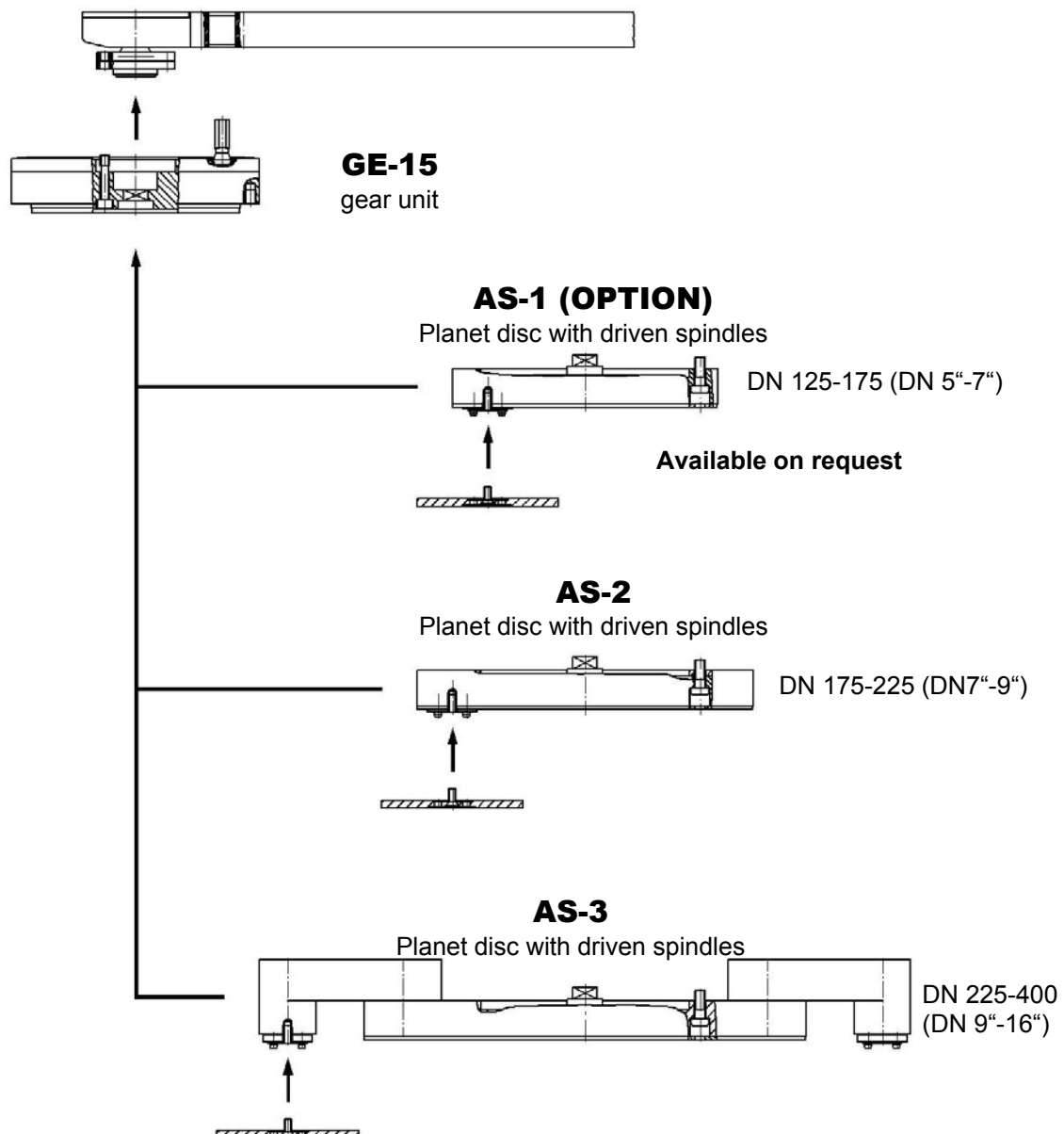
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THE PREMIUM-PRODUCTS – MADE BY EFCO – MADE IN GERMANY

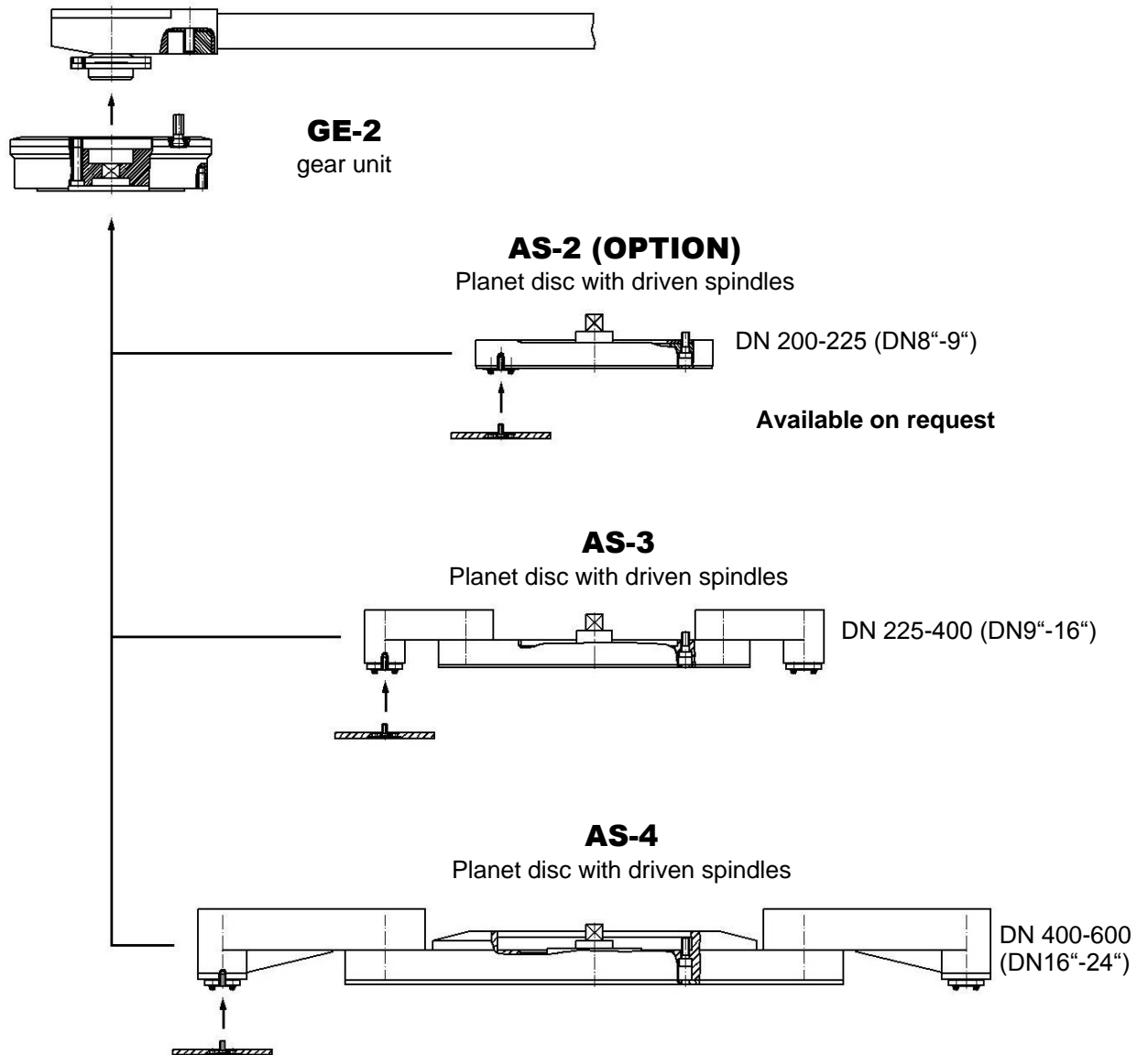
Our machines represent the latest technology in valve repair and set standards

- Very high speed of the **mechanically driven grinding spindles** simultaneously to slow rotation of planet disc
- High grinding speed:..... up to 21 m/s (826.8"/s)
- Very high removal rate:..... up to 2 mm/h (0.08"/h)
(grinding „Stellite 6 / 21“ Ø 350/325 mm (13.8"/11.8"))
- Grinding spindles with CBN-coating by standard
- Machining „Stellite 6 / 21“ using driven CBN-grinding spindles, compared to removal rate with:
 - non-driven CBN-grinding spindles:.....8 – 10 times higher
 - non-driven grinding spindles with folio or paper abrasives:....40 – 50 times higher

The modular design of the HSL-15



The modular design of the HSL-2



The EFCO HSL-Machines, -like all other EFCO products-, are a complete repair system, designed for on-site or in-shop use.

Each complete machine including all accessories is delivered in a plastic transport case.

← Example of a case

Technical Details HSL

- Working range:

HSL-15 with GE-15:

AS-1 : DN 125-175 (DN 5"-7") (OPTION)

AS-2 : DN 175-225 (DN 7"-9")

AS-3 : DN 225-400 (DN 9"-16")

HSL- 2 with GE-2:

AS-2 : DN 200-225 (DN 8"-9") (OPTION)

AS-3 : DN 225-400 (DN 9"-16")

AS-4 : DN 400-600 (DN 16"-24")

- Height **H**:

Planet disc AS-1 + GE-15: 81,5 mm (3.2") (OPTION)

Planet disc AS-2 + GE-15: 77,5 mm (3.05")

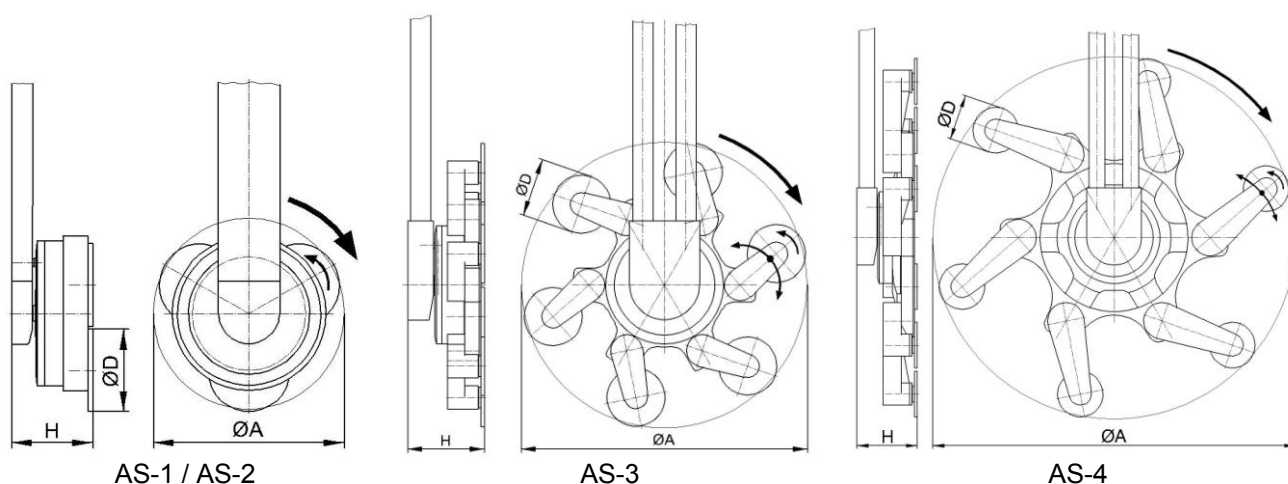
Planet disc AS-3 + GE-15: 77,5 mm (3.05")

Planet disc AS-2 + GE-2 : 105 mm (4.13") (OPTION)

Planet disc AS-3 + GE-2 : 105 mm (4.13")

Planet disc AS-4 + GE-2 : 110 mm (4.3")

Outer grinding diameter A (mm) when using grinding spindle of diameter D (mm)														
	Ø40 (Ø1.57")		Ø50 (Ø1.97")		Ø60 (Ø2.36")		Ø80 (Ø3.15")		Ø90 (Ø3.54")		Ø100 (Ø3.94")		Ø120 (Ø4.72")	
	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.
AS-1	-	153 (6")	-	163 (6.4")	-	173 (6.8")	-	193 (7.6")	-	203 (7.9")	-	-	-	-
AS-2	-	194 (7.6")	-	204 (7.9")	-	214 (8.4")	-	234 (9.2")	-	244 (9.6")	-	254 (10")	-	274 (10.8")
AS-3	242 (9.5")	376 (14.8")	252 (9.9")	386 (15.2")	262 (10.3")	396 (15.6")	282 (11.1")	416 (16.4")	292 (11.5")	426 (16.8")	302 (11.9")	436 (17.2")	322 (12.7")	456 (17.9")
AS-4	405 (15.9")	637 (25.1")	415 (16.3")	647 (25.5")	425 (16.7")	657 (25.9")	445 (17.5")	677 (26.7")	455 (17.9")	687 (27")	465 (18.3")	697 (27.4")	485 (19.1")	717 (28.2")



Subject to technical change.

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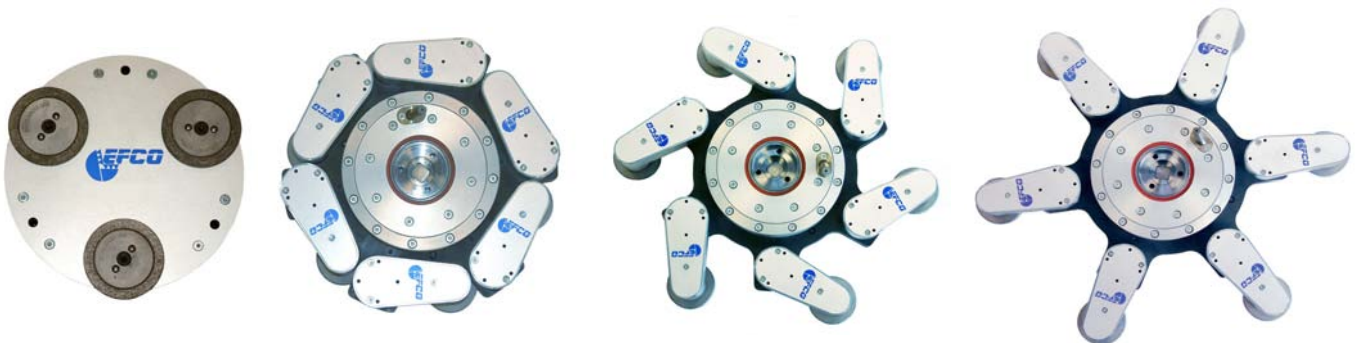
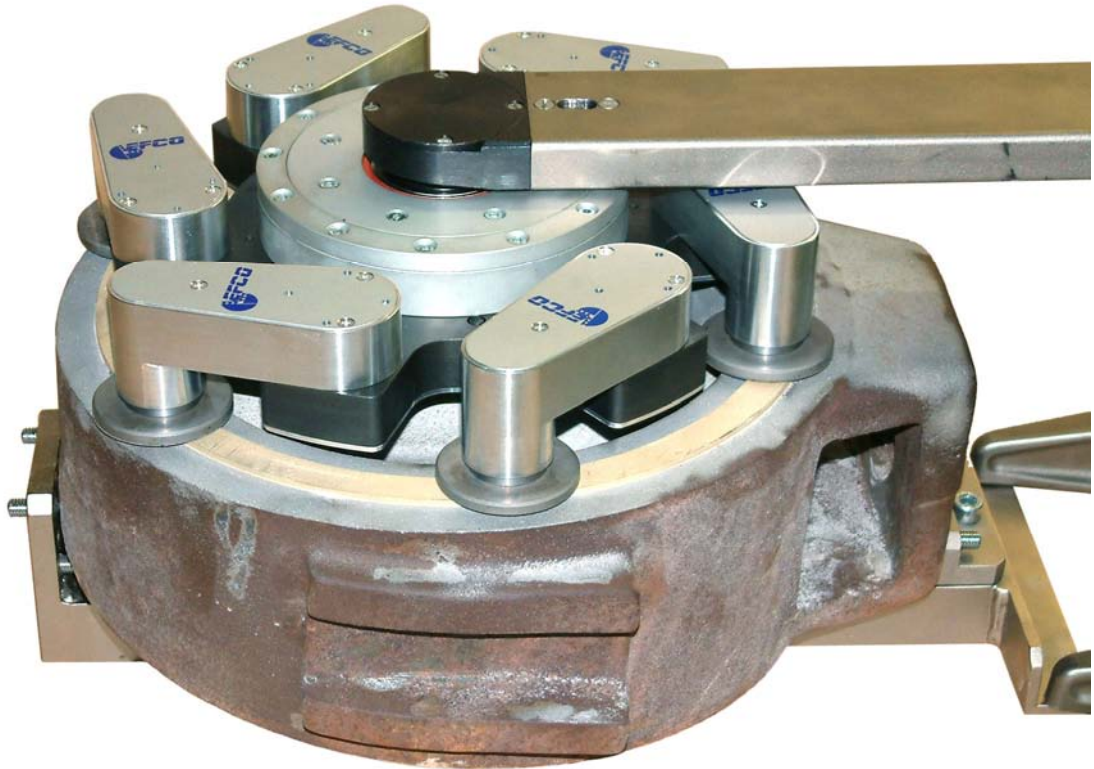
SLA

**Planet-discs with mechanically driven grinding
spindles as accessories to the
EFCO- Gate Valve Grinding Machines SL-15 / SL-2**

SLA-15 DN 175-400 mm (DN 7"-16")

SLA-2 DN 225-600 mm (DN 9"-24")

**Huge time savings up to
90% !**



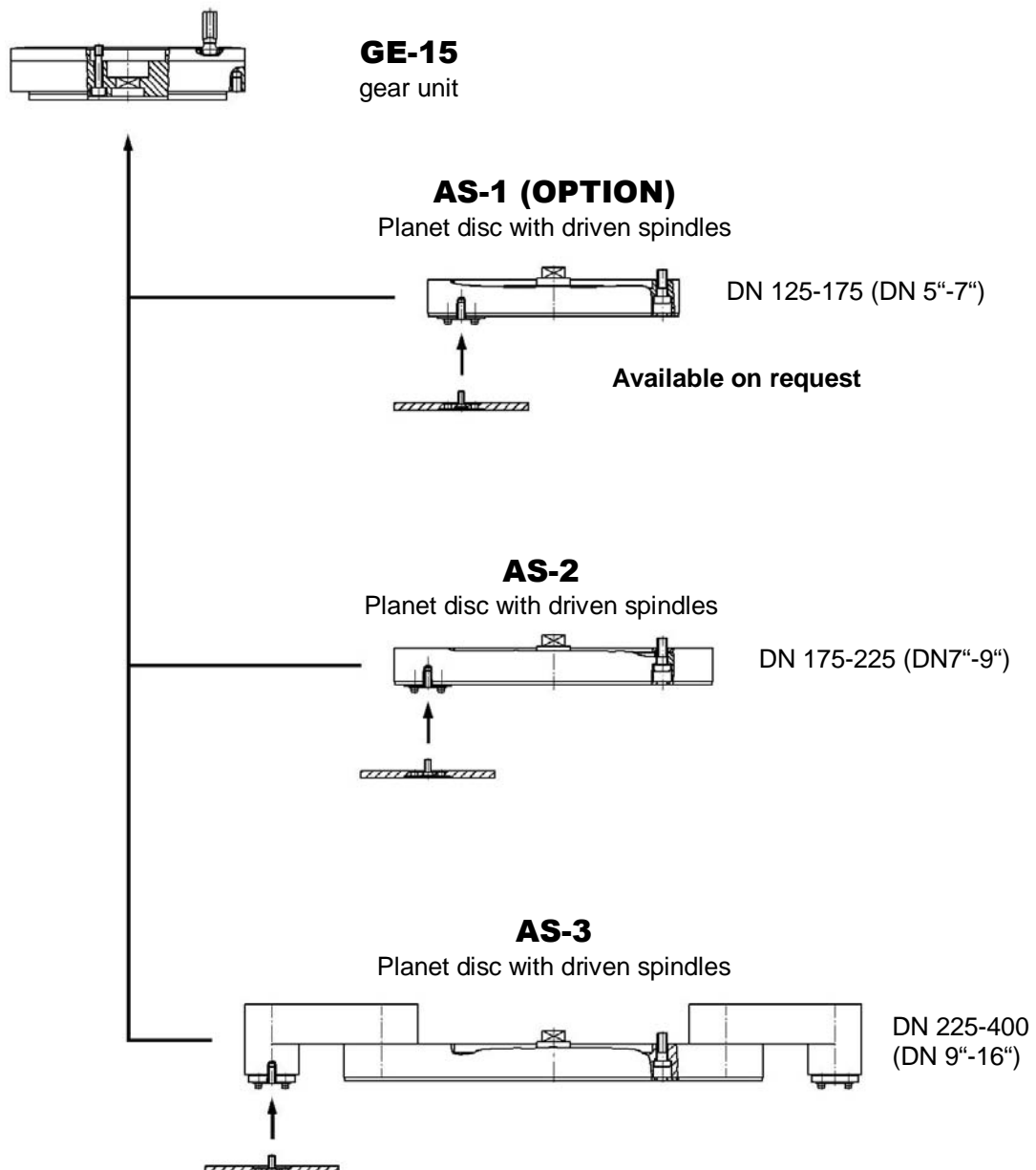
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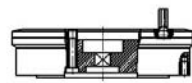
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The modular design of the SLA-15



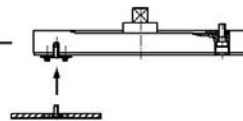
The modular design of the SLA-2



GE-2
gear unit

AS-2 (OPTION)

Planet disc with driven spindles

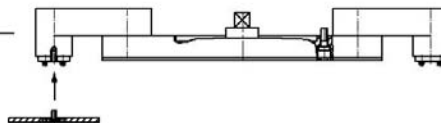


DN 200-225 (DN8"-9")

Available on request

AS-3

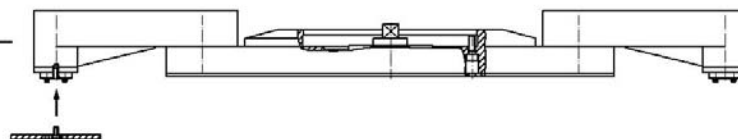
Planet disc with driven spindles



DN 225-400 (DN9"-16")

AS-4

Planet disc with driven spindles



DN 400-600
(DN16"-24")



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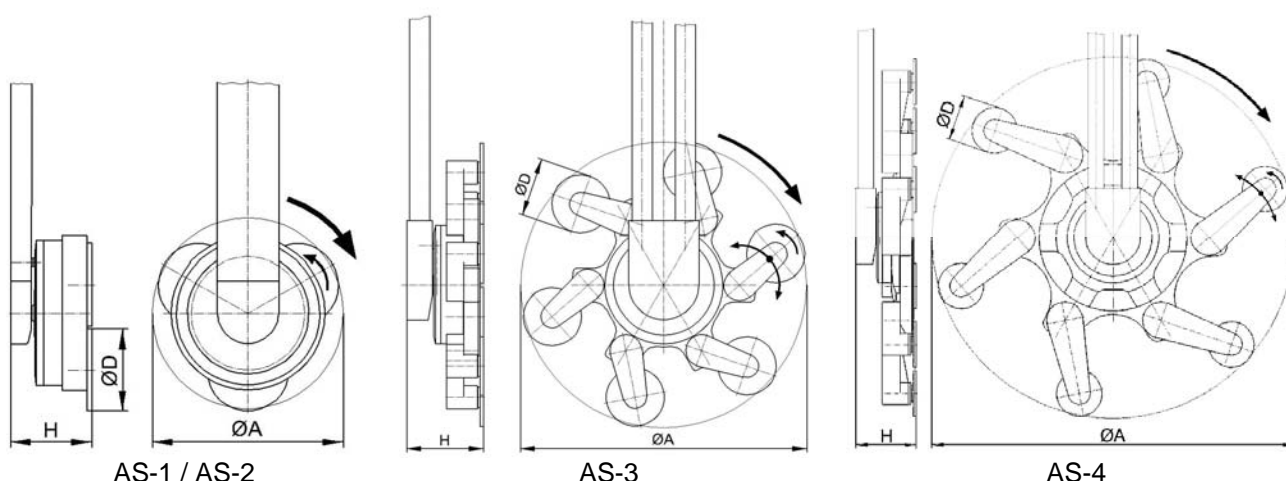
The complete discs with driven grinding spindles including all accessories are delivered in a plastic transport case.

← Example of a case

Technical Details SLA

- Working range:
 - SLA-15** (for SL-15 as from 01/2006):
 - AS-1 : DN 125-175 (DN 5"-7") (OPTION)
 - AS-2 : DN 175-225 (DN 7"-9")
 - AS-3 : DN 225-400 (DN 9"-16")
 - SLA-2** (for SL-2 as from 01/2005):
 - AS-2 : DN 200-225 (DN 8"-9") (OPTION)
 - AS-3 : DN 225-400 (DN 9"-16")
 - AS-4 : DN 400-600 (DN 16"-24")
- Height **H**:
 - with a EFCO SL-machine
 - Planet disc AS-1 + GE-15: 81,5 mm (3.2") (OPTION)
 - Planet disc AS-2 + GE-15: 77,5 mm (3.05")
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