

Mounting Systems & Hydro-Grip



NAPGLADU

Delivering Productivity

Table of Contents – Section G

Description	Page
Open End Standard Sleeve	4
Self Centering Saw & Head Sleeve	5
Set Screw Head Sleeves	5
Steel & Aluminum Spacers	6
Self Centering Cone Collets	6
Stiffening Collars	7
Locking Collars	7
 Hydro-Grip System	
Hydro-Grip Type A & AI	8-9
Hydro-Grip Type B & BI	10-11
Hydro-Grip Type C & CI.	12-13
Hydro-Grip Type CIR	14
Hydro-Grip Types EI, EIS, AEI	15
Safety Disks	15
Hydro-Grip Types GEW2 & GE2	16
Grease Guns, Spare Parts & Spacers	17
Index	18

A
B
C
D
E
F
G
H
I
J
K

Specify these items when ordering:

RH or LH Nut

- Specify right hand or left hand nut (remember, tool rotation is always opposite of nut rotation when it is being tightened)

Capacity

- Minimum head capacity of an open end sleeve is 1-1/2"
- Maximum head capacity of an open end sleeve is 12"

Sleeves (specify these items)

- Inside diameter
- Outside diameter
- Capacity
- Rotation

Sleeve Taper Angle

- 30 degree taper on cones is standard

Stiffening Collars

- 1/8" is standard thickness

Optional Items for Mounting Systems

Cone for O.E. Sleeve	Nut For Closed End Sleeve	Hydro Bore > 5 inches wide or less
Keyways (Standard)	Safety Collars/Hydro HD	Hydro Bore > over 5 inches wide
Mounting Holes (qty. 1-6)	Spacers To Fill Out Barrell	Add Grease Fitting & Release to O.D.
Mounting Holes (qty. 7-12)	Undercut O.E. Sleeve	
Nut For Open End Sleeve	Wrench For Sleeve	

Open End Standard Sleeve Specifications

A

B

C

D

E

F

G

H

I

J

K



Applications

- For mounting a variety of tools on horizontal or vertical non-threaded shafts that is not threaded
- Sleeve centers itself and the tool as the nut is tightened when using a collapsible collet system

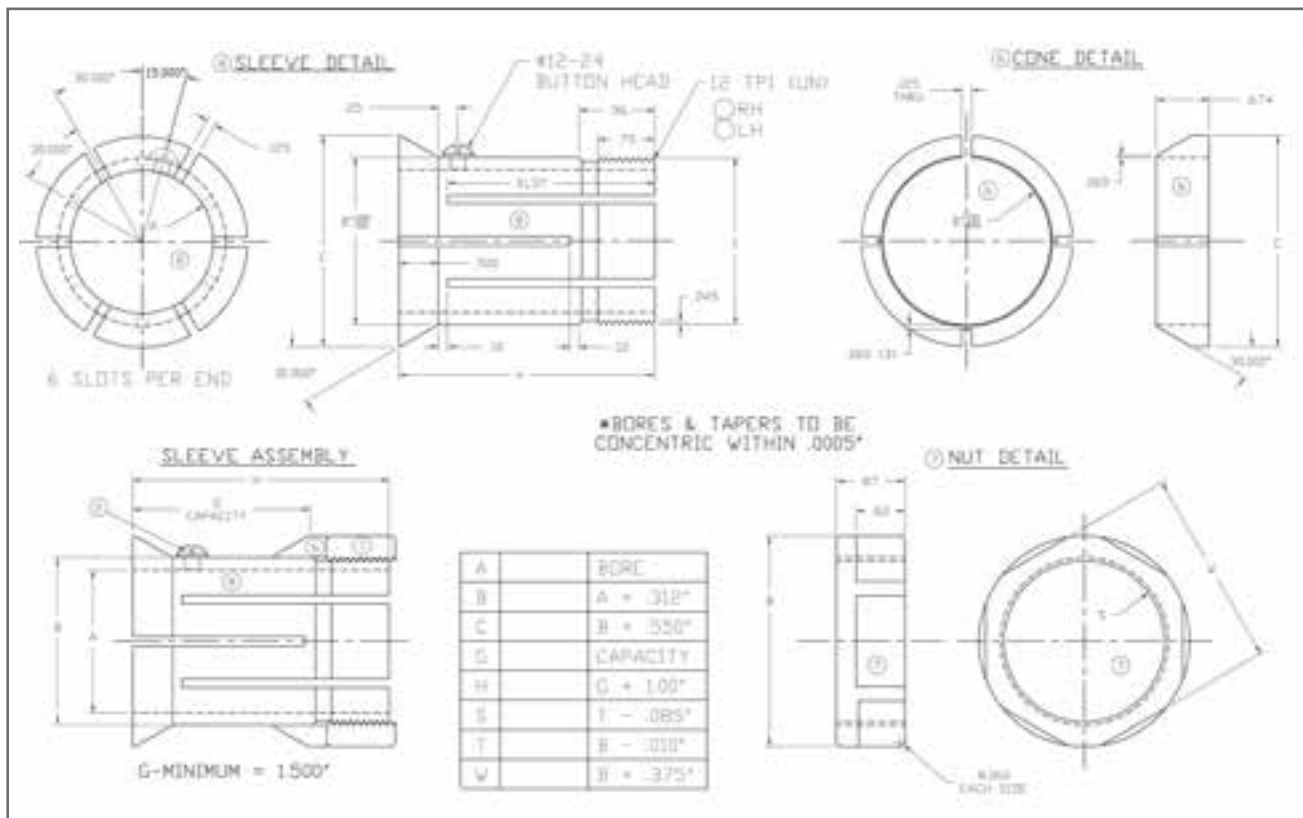
Advantages

- The open end standard sleeve can be mounted anywhere on the shaft
- Designed to accurately center tooling on the shaft
- Easily moved to different locations on the shaft

Technical Information

- Designed with a standard bore diameter of 1-13/16" or a 2-1/8"
- Comes with a standard key of 3/8" on the sleeve
- Standard 30 degree taper on cones
- Body thickness of your tool determines capacity
- When ordering specify: either right hand or left hand rotation, body thickness of tool, and bore diameter

NOTE: The open end standard sleeve is available in any length to customer specifications. Available in 3", 4", 5", 6", and 8" capacities.



Self Centering & Set Screw Head Sleeves

Self Centering Saw & Head Sleeve



Applications

- For mounting either cutter heads or saw blades onto a smooth shaft

Advantages

- Designed to accurately center tooling on the shaft
- The complete unit can be mounted anywhere on the shaft to mount a wide variety of tools
- The open end standard sleeve design centers the whole unit accurately onto the shaft

Technical Information

- Standard barrel design with open end sleeve bore diameter of 1-13/16" or a 2-1/8"
- 1/8" Center Spacer is included with the sleeve
- The use of spacers to take up the remaining sleeve space allows the interchanging of saws and cutters
- Specify either right or left hand rotation when ordering

NOTE: The open end standard sleeve is available in any length to customer specifications (See page 4). Available in 3", 4", 5", 6", and 8" capacities.

Set Screw Saw & Head Sleeve



Applications

- For mounting either cutter heads or saw blades onto a smooth shaft
- Can mount cutters as well as saw blades with the addition of spacers

Advantages

- Sleeve can be easily moved anywhere on the shaft
- The sleeve and tool, can be removed as one unit

Technical Information

- Two brass tipped set screws protect the shaft
- Screws set 90 degrees apart firmly mount the system onto the shaft
- The retaining ring screws onto the sleeve to lock the tools into place
- Specify either right or left hand rotation when ordering

NOTE: Available in 1", 2", 3", 4", 5", 6", and 8" capacities.

Spacers and Cone Collets Specifications

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Steel & Aluminum Spacers

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E



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Technical Information

- Available thickness range: .25" – 600"
- Available Outside Diameter: 600" and under
- Parallelism Tolerance +/- .0005
- Width Tolerance +/- .002"
- Specify diameter, bore, thickness, and keyway when ordering

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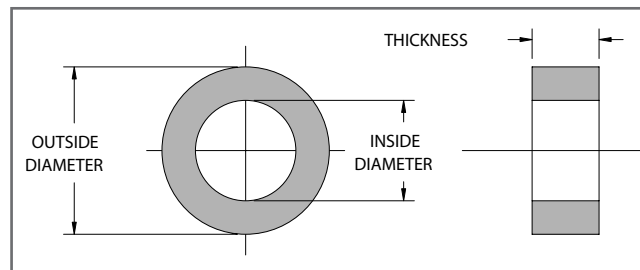
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Applications

- Used to space tooling on the shaft

Advantages

- Custom built to exact customer specifications for proper spacing
- Can be ordered in aluminum for weight reduction, steel spacers are standard



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Self Centering Cone Collets

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Technical Information

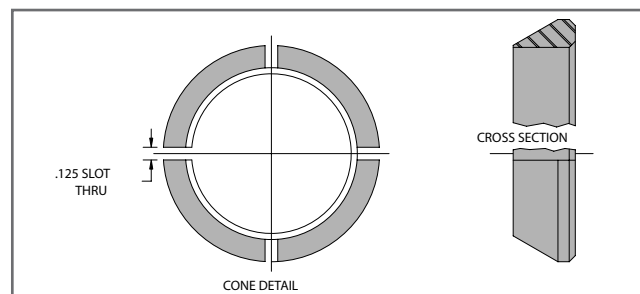
- Standard 30 degree taper on cones
- 1", 1-1/8", 1-1/4" bores are standard
- Specify your specific bore when ordering
- Comes in a set of 2

Applications

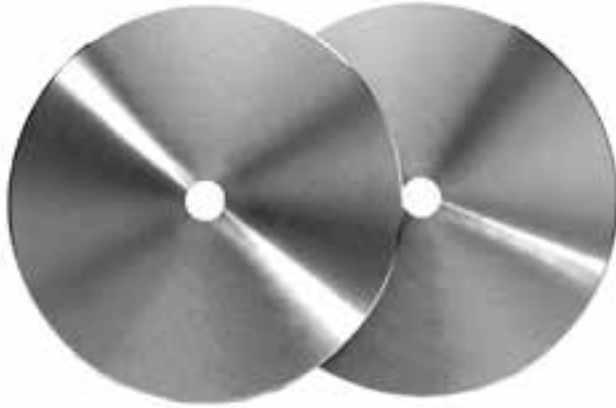
- Cone collets center tools more accurately than a straight bore
- For mounting a variety of tools onto horizontal or vertical threaded shafts
- A practical solution for mounting small shaper cutters on the shaft

Advantages

- Can be used to mount a variety of heads with different bore diameters
- Helps minimize runout in all machine operations



Stiffening Collars & Locking Collars



Technical Information

- Made from 1/8" thick, hardened and ground plate
- Hollow ground for maximum stiffening power
- Use largest diameter stiffening collar for the application

Applications

- For added straightness and stability to saw blades

Advantages

- Gives saw blades more support, resulting in straighter cuts and longer tool life
- Helps produce better quality cuts in the material

Stiffening Collars

Part No.	Diameter	Bore Size
SC-6-293	6"	5/8"
SC-6-294	6"	1"
SC-8-295	8"	1"
SC-9-296	9"	1"
SC-10-297	10"	1"

NOTE: Bore sizes listed are standard and can not be changed due to the hardness of the steel. Additional sizes available upon request.

Round Style Locking Collars

For an Improved Balance Set-Up



HYDRO-GRIP Type A and AI

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I

J

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Applications

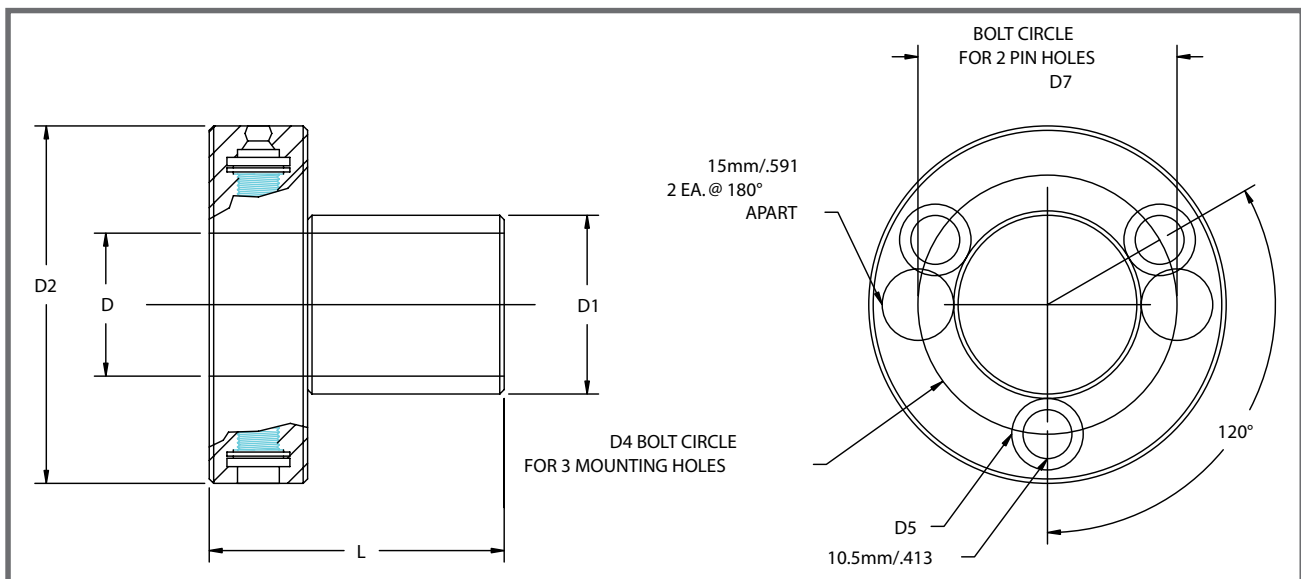
- Extremely accurate mounting system for use on non-threaded arbors

Advantages

- Increase feed rates by 30-50%
- Gives near perfect concentricity on the OD
- Excellent repeatability of the cutting circle ensures that all of the knives/wings cut effectively
- Reduces set up time because the cutting tool and sleeve remain as one unit No assembly required
- Smoother finishes for limited sanding

Technical Information

- Type A and AI is pressed into the cutting tool and retained by screws
- Type A sleeve is operated with a high pressure pump
- When pressurized: Inner sleeve expands towards the spindle
- Type AI sleeve is operated with a T-wrench



HYDRO-GRIP Type A and AI

Type A with inch bores

Part No.	Description	Capacity
MG112	A-1 1/4"/40-55***	35mm
MG113	A-1 13/16"/60-55	35mm
MG114	A-1 13/16"/65-55	35mm
MG115	A-2 1/8"/65-55	35mm

Type AI with inch bores

Part No.	Description	Capacity
MG130	AI-1 1/4"/40-55***	35mm
MG131	AI-1 1/2"/50-55	35mm
MG133	AI-1 13/16"/60-55	35mm
MG134	AI-2 1/8"/65-55	35mm

Type A with metric bores

Part No.	Description	Capacity
MG100	A-40/60-55	35mm
MG101	A-45/60-55*	35mm
MG105	A-45/60-75*	55mm
MG102	A-50/60-55**	35mm
MG106	A-50/60-75**	55mm
MG108	A-60/70-55	35mm
Special Size	A-60/70-75	35mm

Type AI with metric bores

Part No.	Description	Capacity
MG120	AI-40/50-55	35mm
MG121	AI-40/60-55	35mm
MG123	AI-50/60-55**	35mm
MG126	AI-50/60-75**	55mm
MG128	AI-50/65-75**	35mm

Special Sizes are non-standard sleeves

*) The A E45 sleeve has two carrier pegs, 8.5 x 5 mm.

***) The A E50 has two, threaded M5-holes for carrier pegs, on a 70 mm bolt circle diameter.

***) The A-1-1/4"/40 has two tool fastening holes.

HYDRO-GRIP Type B and BI

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Technical Information

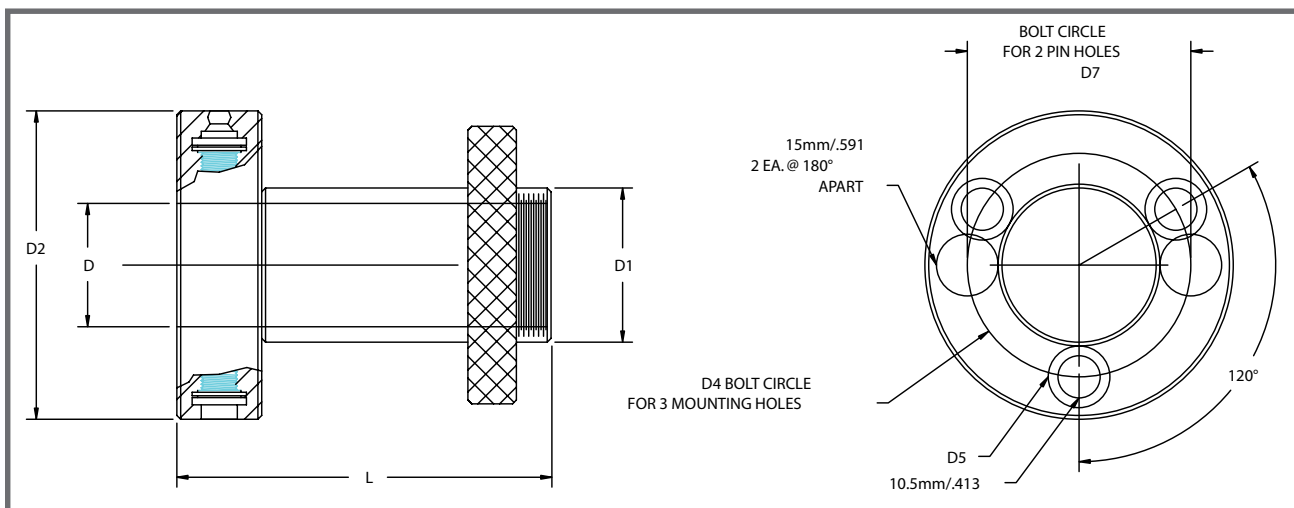
- Type B and BI is threaded and has a knurled ring nut for interchangeability between various cutting tools
- Type B sleeve is operated with a high pressure pump
- When pressurized: inner sleeve expands towards the spindle and the outer sleeve expands towards the tool
- Type BI sleeve is operated with a T-wrench

Applications

- Extremely accurate mounting system for use on non-threaded arbors
- Use on moulder, tenon machines, etc

Advantages

- Increase feed rates by 30-50%
- Gives near perfect concentricity on the OD
- Excellent repeatability of the cutting circle ensures that all of the knives/wings cut effectively
- Reduces set up time because the cutting tool and sleeve remain as one unit No assembly required
- Smoother finishes for limited sanding



HYDRO-GRIP Type B and BI

Type B with inch bores

Part No.	Description	Capacity
Special Size	B-1 1/4"/40-85***	50mm
MG243	B-1 1/2"/50-85	50mm
MG244	B-1 1/2"/50-135	100mm
MG245	B-1 1/2"/50-185	150mm
MG247	B-1 13/16"/60-75	40mm
MG248	B-1 13/16"/60-115	80mm
MG250	B-1 13/16"/60-190	155mm
MG252	B-1 13/16"/65-85	50mm
MG253	B-1 13/16"/65-135	100mm
MG254	B-1 13/16"/65-185	150mm
MG257	B-2 1/8"/65-85	50mm
MG258	B-2 1/8"/65-135	100mm
MG259	B-2 1/8"/65-185	150mm

Type B with metric bores

Part No.	Description	Capacity
MG202	B-40/50-75	40mm
MG203	B-40/50-115	80mm
MG206	B-40/60-75	40mm
MG207	B-40/60-95	60mm
MG208	B-40/60-115	80mm
Special Size	B-40/60-140	105mm
MG210	B-40/60-165	130mm
MG211	B-40/60-215	180mm
MG213	B-45/60-75*	40mm
MG214	B-45/60-95*	60mm
MG215	B-45/60-115*	80mm
MG216	B-45/60-140*	105mm
MG217	B-45/60-190*	155mm
Special Size	B-45/60-240*	205mm
MG220	B-50/60-75**	40mm
MG221	B-50/60-95**	60mm
MG222	B-50/60-115**	80mm
MG223	B-50/60-140**	105mm
MG224	B-50/60-190**	155mm
Special Size	B-50/60-230**	195mm
MG226	B-50/60-240**	205mm
MG228	B-60/70-75	40mm
MG229	B-60/70-190	155mm

Type BI with inch bores

Part No.	Description	Capacity
MG287	BI-1 1/2"/50-85	50mm
MG288	BI-1 1/2"/50-135	95mm
MG289	BI-1 13/16"/60-75	40mm
MG291	BI-1 13/16"/60-115	80mm
MG292	••BI-1 13/16"/60-140	100mm
MG294	BI-1 13/16"/65-85	50mm
Special Size	BI-1 13/16"/65-135	95mm
MG297	BI-2 1/8"/65-85	50mm
Special Size	••BI-2 1/8"/65-135	95mm

Type BI with metric bores

Part No.	Description	Capacity
MG270	BI-40/50-75	40mm
MG272	BI-40/60-75	40mm
MG273	BI-40/60-95	60mm
MG274	BI-40/60-115	80mm
Special Size	••BI-40/60-140	100mm
Special Size	BI-45/60-75*	40mm
Special Size	BI-45/60-115*	80mm
MG282	BI-50/60-75**	40mm
MG283	BI-50/60-95**	60mm
MG284	BI-50/60-115**	80mm
Special Size	••BI-50/60-140**	100mm

Special Sizes are non-standard sleeves

*) The B E45 sleeve has two carrier pegs, 8.5 x 5 mm.

***) The B E50 has two, threaded M5-holes for carrier pegs, on a 70 mm bolt circle diameter.

****) The B-1-1/4"/40 has two tool fastening holes.

HYDRO-GRIP Type C and CI

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Applications

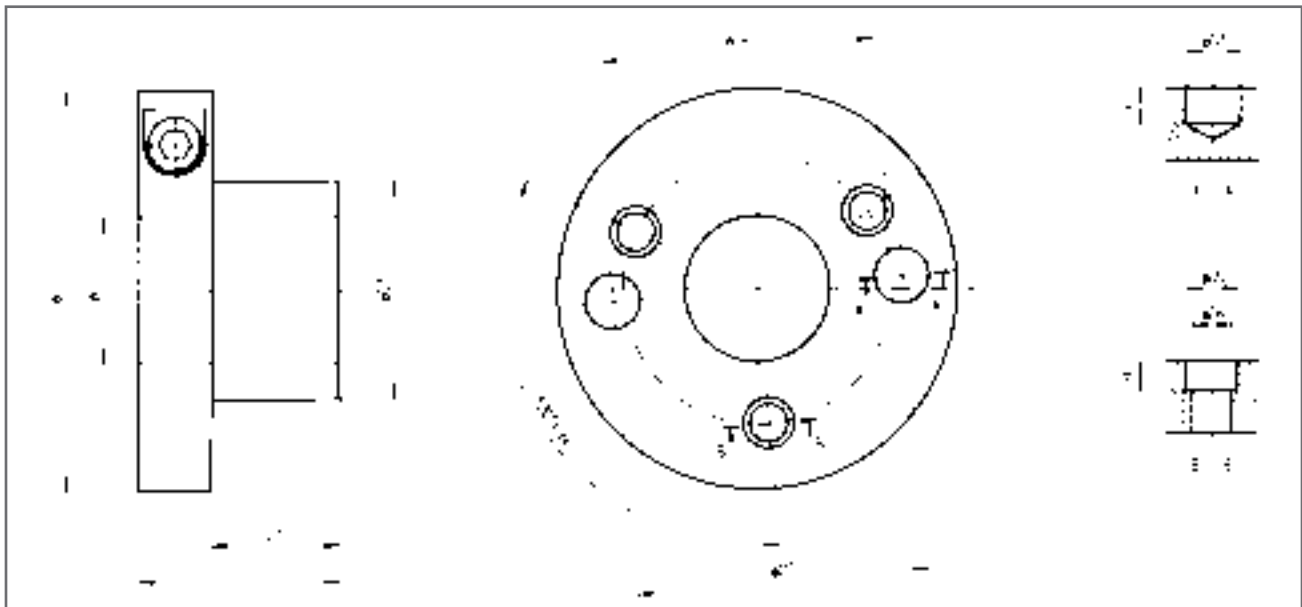
- Extremely accurate mounting system for use on non-threaded arbors

Advantages

- Increase feed rates by 30-50%
- Gives near perfect concentricity on the OD
- Excellent repeatability of the cutting circle ensures that all of the knives/wings cut effectively
- Reduces set up time because the cutting tool and sleeve remain as one unit No assembly required
- Smoother finishes for limited sanding

Technical Information

- Type C & CI sleeves are interchangeable between various cutting tools and retained by screws
- Type C sleeve is operated with a high pressure pump
- When pressurized: inner sleeve expands towards the spindle and the outer sleeve expands towards the tool
- Type CI sleeve is operated with a T-wrench



HYDRO-GRIP Type C and CI

Type C with inch bores

Part No.	Description	Capacity
MG328	C-1 1/2"/50-85	65mm
Special Size	C-1 1/2"/50-135	115mm
MG331	C-1 13/16"/60-75	55mm
MG332	C-1 13/16"/65-85	65mm
MG333	C-1 13/16"/65-135	115mm
Special Size	C-1 13/16"/65-185	165mm
Special Size	C-2 1/8"/65-85	65mm
Special Size	C-2 1/8"/65-135	115mm

Type C with metric bores

Part No.	Description	Capacity
Special Size	C-40/50-115	95mm
MG304	C-40/60-75	55mm
MG305	C-40/60-95	75mm
MG306	C-40/60-115	95mm
Special Size	C-40/60-140	120mm
MG308	C-40/60-165	145mm
Special Size	C-40/60-215	195mm
MG311	C-45/60-75*	55mm
Special Size	C-45/60-95*	75mm
Special Size	C-45/60-115*	95mm
Special Size	C-45/60-140*	120mm
MG318	C-50/60-75**	55mm
MG319	C-50/60-95**	75mm
MG320	C-50/60-115**	95mm
MG321	C-50/60-140**	120mm
MG322	C-50/60-190**	170mm
MG323	C-50/60-230**	210mm
MG326	C-60/70-233	213mm

Type CI with inch bores

Part No.	Description	Capacity
Special Size	CI-1 1/2"/50-135	115mm
Special Size	CI-1 13/16"/60-115	95mm
Special Size	CI-2 1/8"/65-135	110mm

Type CI with metric bores

Part No.	Description	Capacity
MG340	CI-40/50-75	55mm
MG342	CI-40/60-75	55mm
MG343	CI-40/60-95	75mm
MG344	CI-40/60-115	95mm
MG345	••CI-40/60-140	115mm
Special Size	CI-45/60-95*	75mm
Special Size	••CI-45/60-140*	115mm
MG352	CI-50/60-75**	55mm
MG353	CI-50/60-95**	75mm
MG354	CI-50/60-115**	95mm
MG355	••CI-50/60-140**	115mm

Special Sizes are non-standard sleeves

*) The A E45 sleeve has two carrier pegs, 8.5 x 5 mm.

***) The A E50 has two, threaded M5-holes for carrier pegs, on a 70 mm bolt circle diameter.

****) The A-1-1/4"/40 has two tool fastening holes.

HYDRO-GRIP Type CIR – Stainless Steel

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Applications

- Extremely accurate mounting system for use on non-threaded arbors

Advantages

- Manufactured from stainless steel, capable of ultrasonic cleaning as one unit with the tooling
- Increase feed rates by 30-50%
- Gives near perfect concentricity on the OD
- Excellent repeatability of the cutting circle ensures that all of the knives/wings cut effectively
- Reduces set up time because the cutting tool and sleeve remain as one unit No assembly required
- Smoother finishes for limited sanding

Type CIR with inch bores

Part No.	Description	Capacity
MG381	CIR-1 13/16"/60-75	55mm

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Type CIR with metric bores

Part No.	Description	Capacity
Special Size	CIR-40/50-75	55mm
Special Size	CIR-40/60-55	35mm
Special Size	CIR-40/60-75	55mm
Special Size	CIR-40/60-95	75mm
Special Size	CIR-40/60-115	95mm
Special Size	CIR-50/60-55**	35mm
MG377	CIR-50/60-75**	55mm
Special Size	CIR-50/60-95**	75mm
Special Size	CIR-50/60-115**	95mm

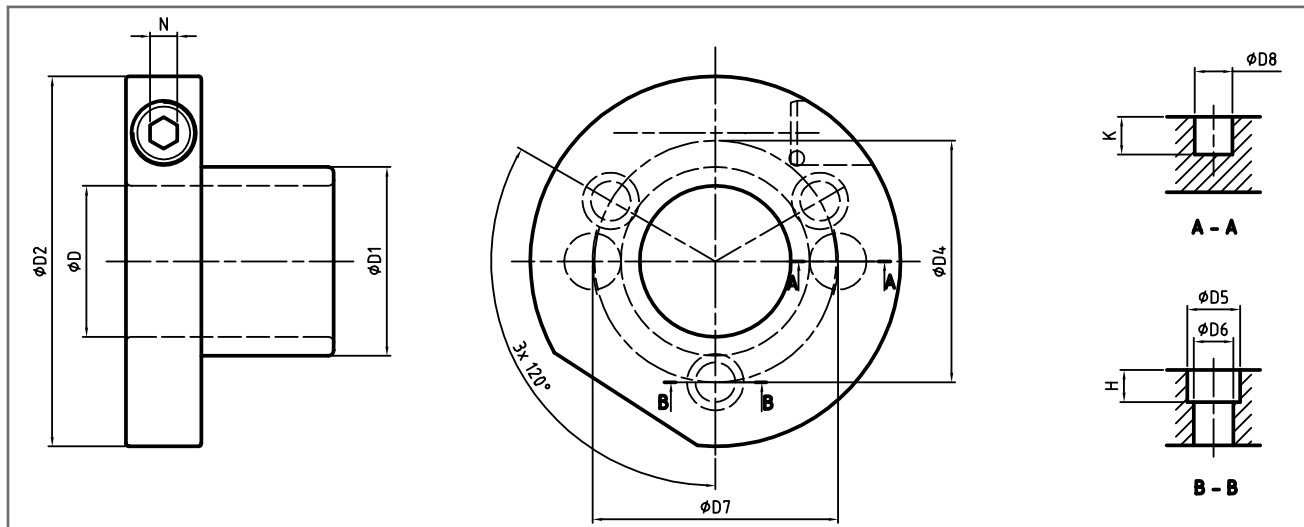
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Technical Information

- Type CIR sleeves are interchangeable between various cutting tools and retained by screws
- When pressurized: inner sleeve expands towards the spindle and the outer sleeve expands towards the tool



HYDRO-GRIP Types EI, EIS, AEI and Safety Disks

Hydro-Grip Types EI and EIS



Technical Information

- MG410 & MG413 sleeves for interchangeable tool assembly and machines with hexagonal spindle profile
- MG410's insert is located in the collar of the sleeve
- MG413's insert can be used in either end of the sleeve
- MG418 features an internal hexagonal profile in its open side
- Order Safety Disk separately

Hydro-Grip with metric bores

Part No.	Description	Capacity
MG410	EI-40/60-92	68mm
MG413	EI-40/80-92	25mm
MG415	EI-40/80-90	17.7mm
MG416	EI-35/80-90	17.7mm
MG418	EIS-40/60-92	68mm

Hydro-Grip Type AEI



Technical Information

- Sleeve for permanent tool assembly & spindles with keys

Hydro-Grip "AEI" with metric bores

Part No.	Description	Capacity
MG402	AEI-35/60-55	35mm
MG403	AEI-35/60-70	50mm
MG404	AEI-40/60-55	35mm
Special Size	AEI-40/60-70	50mm



Safety Disks

Part No.	Description
MG420	Safety Disk for EI types MG410 & MG413
MG421	Safety Disk for EIS Type MG418

- A
- B
- C
- D
- E
- F
- G
- H
- I
- J
- K

HYDRO-GRIP Types GEW2 and GE2

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B

C

D

E

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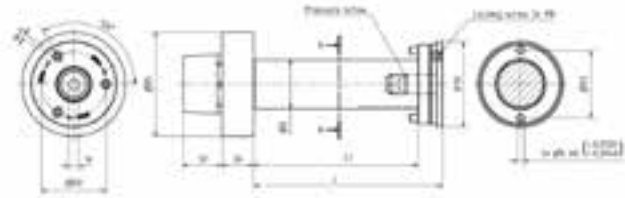
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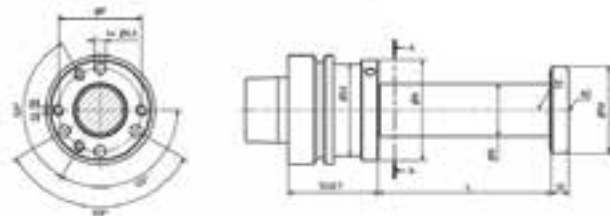


Technical Information

- The new GEW2 expands uniformly by pressurizing the system with an allen T-wrench, a grease gun is NOT required The mechanism is protected from dust behind a sealed plug making the tool assembly quick and easy

Type GEW2 with metric bores

Part No.	Description	Capacity
MG650	GEW2-30x55	55mm
MG651	GEW2-30x100	100mm
MG640	GEW2-40x55	55mm
MG641	GEW2-40x135	135mm
MG652	GEW2-40x170	170mm
MG642	GEW2-40x240	240mm
MG653	GEW2-50x55	55mm
MG654	GEW2-50x135	135mm
MG655	GEW2-50x170	170mm
MG644	Mounting Handle	



Technical Information

- Quick and precise tool assembly
- High performance and balance
- Redesigned safety ring in light metal
- Multiple tool attachment
- Adapted for three wing tools

Type "GE2" with inch bores

Part No.	Description	Capacity
MG531	GE2-1"x40/HSK 63F	40mm
MG532	GE2-1"x55/HSK 63F	55mm
MG533	GE2-1"x80/HSK 63F	80mm
MG534	GE2-1 1/4"x40/HSK 63F	40mm
MG535	GE2-1 1/4"x55/HSK 63F	55mm

Type "GE2" with metric bores

Part No.	Description	Capacity
MG525	GE2-20x40/HSK 63F	40mm
MG526	GE2-25x55/HSK 63F	55mm
MG527	GE2-30x40/HSK 63F	40mm
MG528	GE2-30x55/HSK 63F	55mm
MG529	GE2-30x80/HSK 63F	80mm
MG530	GE2-30x100/HSK 63F	100mm

Grease Guns, Spare Parts and Spacers



Applications

- To be used for all types of hydraulic mounting systems including the A, B, C & GEW type
- Delivers accurate pressure and readings for safe tool operation

Technical Information

- Reads from 0-600 bars of pressure
- Uses standard size grease cartridges
- Glycerine dial gauge
- Use the correct grease type for best performance
- DO NOT use soap based grease, to avoid damaging the sleeve

Recommended Grease Type

- Blase: Blasolube 301
- Exxon: Unirex N2
- Gulf: Gulfex MP
- Fina: Marson EPL2
- Esso: MP Grease/Beacon EP2
- SKF: Alfalub LGMT2
- Mobil: Mobilux 1, 2
- Texaco: Molytux EP2
- BP: L21M
- Shell: Retinax A

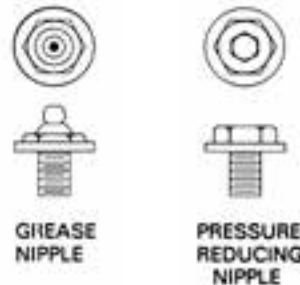
Part No.	Description
NP552	Grease Gun
NP553	High Pressure Hose
NP554	Hydraulic Connector
NP555	Grease Cartridge
NP747	Spare Part Kit
NP748	Pressure Release Repair Kit

* Spare Part Kit Includes: Hydraulic Connector, Washer, Steel ball 3/16" diameter, Barrel Seal, X-ring and Pressure Release Repair Kit.

**Pressure Release Repair Kit includes: Pressure Release Screw, Steel ball 4mm diameter, Valve Seat and O-ring.

Types A, B, & C Hydro-Grip Grease Nipples

Part No.	Description
NP751	Kit with 1 Filler, 1 Release Nipple, 2 Washers
NP749	Filler nipple with washer
NP750	Release nipple with washer



Hydro-Grip Spacers

Part No.	Description
Spacer-D-60*/90-5	ETP-Hydro-Grip Spacer
Spacer-D-60*/90-10	ETP-Hydro-Grip Spacer
Spacer-D-60*/90-20	ETP-Hydro-Grip Spacer
Spacer-DH-60*/90-3	ETP-Hydro-Grip Spacer
Spacer-DH-60*/90-5	ETP-Hydro-Grip Spacer
Spacer-DH-60*/90-10	ETP-Hydro-Grip Spacer

DH with 3 holes and 3 cut-in portions

* = Usable also for D1 = 59.96mm instead of 60mm.

Hydro-Grip Spacer Set

Part No.	Description
Spacer set DS-60/90	Thickness = 0.1, 0.2, 0.3, 0.5, 1.0 5 pcs. with 3 holes