

Guth butterfly valves

the perfect
product line



A complete line of valves

Our wide range of sizes and connection standards from DN 10(1/2") to DN 150(6")

enables us to cover all your applications for hygienic butterfly valves from the small dosing line to large collecting pipes. Our separate DIN and inch series guarantee a smooth flow at all times.

Our enormous variety of valves

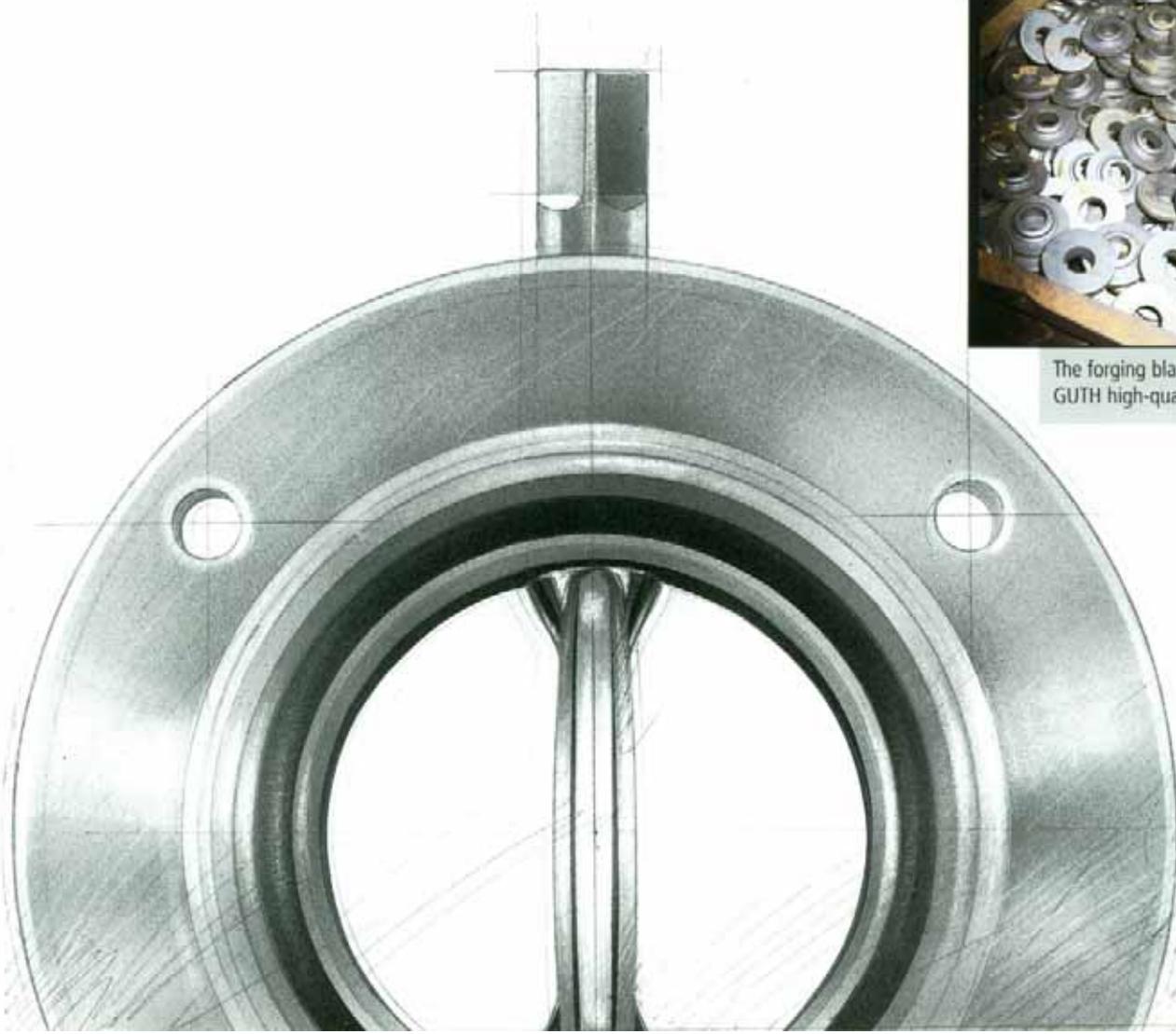
always contains the appropriate solution for your application.

Our extensive multi-way and butterfly valve product line

offers you compact and value for money assemblies to build your modern process installation.

Our extensive line of actuators and accessories

offers you a complete package for task-specific operation and the automation of shut-off, change-over or control functions.



The forging blank - the basis for GUTH high-quality butterfly valves

The outstanding design features

Guaranteed waterproof control head (IP 65!) thanks to a stainless steel protective cap with solid screwed closure and chamber shut-off with mini check valve

The control head remains tight even at severe conditions. Simply screw on - no tool needed.

Perfect, modular construction of the control head consisting only of reliable, first-quality components and metal connections

for an optimal adaption to different requirements.

Sturdy, durable and ergonomic operating handles made of stainless steel

see operating handles p. 7

Generously dimensioned precision stainless steel actuators in several sizes, single or double acting, with an extremely long service life

A worldwide highly recognized actuator product line!

Optimal performance thanks to 2-stage torque characteristic

Even under difficult process conditions or when actuating several butterfly valves, you still have reserves!

Easy and secure disassembly and maintenance of the actuator

Standard O-rings enable an economic start-up even after numerous switching cycles!

Torsionfree mounting brackets

Fast, stress-free assembly - and: one size fits several nominal widths!

Only forged housing from certified stainless steels

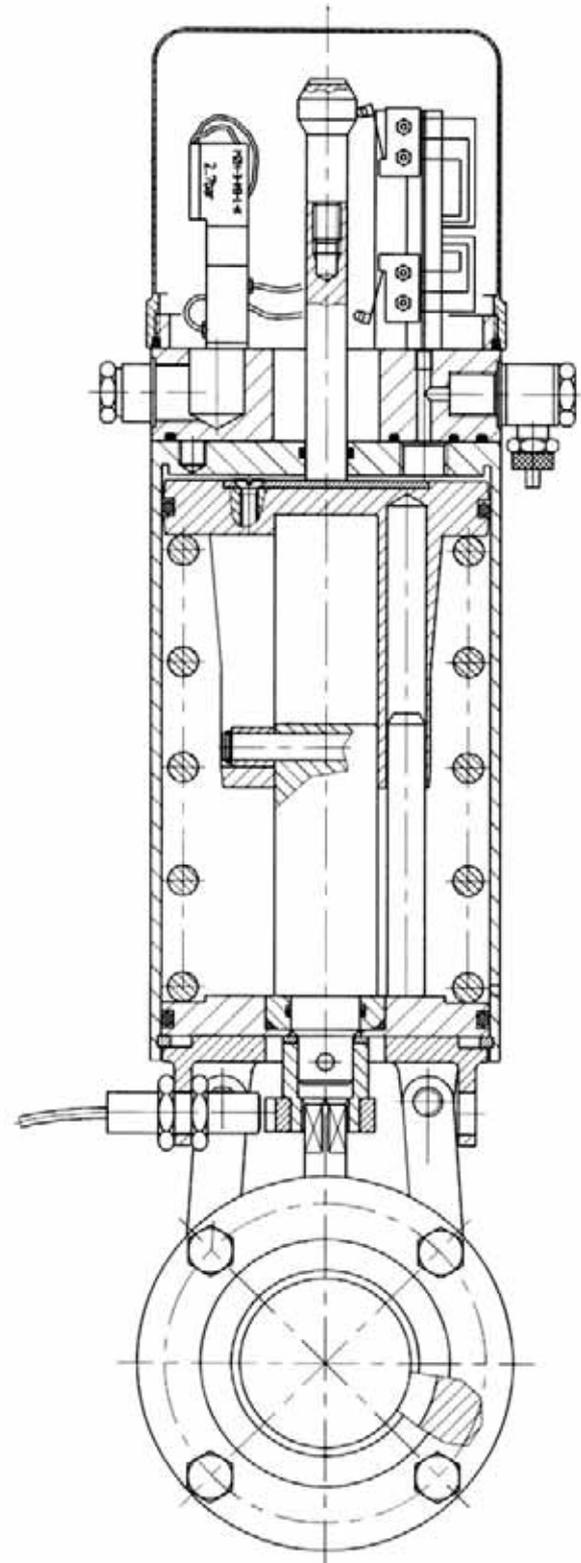
Non-porous and smooth surfaces, sturdiness and secure assembly are your advantages.

Forged flow-friendly shaped disk

Dense, high-polished surface for the best possible hygienic conditions, a high waterhammer resistance and low wear: our disks meet all those requirements.

Seals in 4 different FDA-approved materials – silicone, EPDM, HNBR and Viton

Easy operation, high pressure resistance and performance reliability, as well as low wear in the different processes.



The butterfly valve product line

Connections:

■ Dimensions from DN 10 to DN 150

- weld end short or long
- male respectively liner and nut (DIN 11851)
- clamp end (DIN 32676)
- flanges, e. g. according to DIN
- intermediate flange ends for DIN flanges or GUTH hygienic flanges

■ Dimensions for inch standards, 1/2" – 6"

- weld end
- inch clamp end
- SMS, RJT, IDF, ACME male, respectively liner and nut
- intermediate flange ends for GUTH inch size hygienic flanges

Materials:

■ Housing, disk:

forged, certified stainless steel. Standard 1.4301/304 or 1.4404/316 L. Housing finely machined; in the case of welded-on connections, finely abraded, internal welding seam; precision disks forged, machine-polished

■ Seals:

- silicone light gray
- EPDM black
- HNBR dark gray
- VITON black
- each FDA-certified

Operation:

■ manual:

stainless steel trigger, pull, fine-notch and stepless rotary handles in various sizes, see handle product line

■ pneumatic:

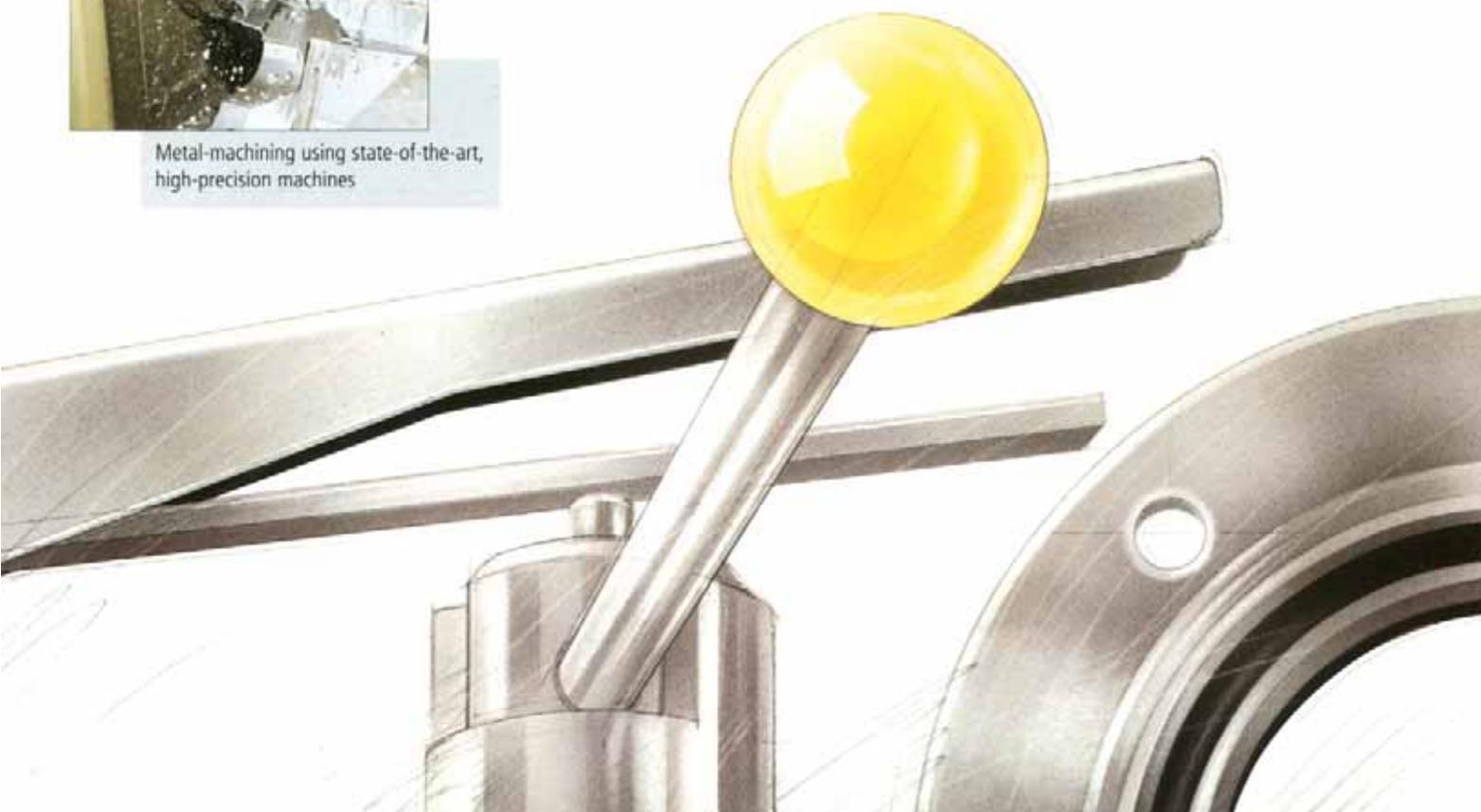
single and double action stainless steel 90° rotary actuators, various sizes, well-balanced torque conduct, extensive line of accessories (see actuator and accessories program)

■ electric:

90° actuators, various sizes, standard voltage 220 V – or 24 V =.



Metal-machining using state-of-the-art, high-precision machines



The models



Standard versions

- connections directly integrated into the housing, both sides, equal or different
- in the case of DIN and inch nominal sizes
- **eccentrically** reduced from the basis DN 25 housing in the case of the nominal sizes 10 to 20 resp. 1/2" to 3/4", so that complete emptying is guaranteed.



Intermediate flange version

- standard, but housing ends with hygienic chambered seal
- smooth GUTH flange screwed on with the cunning plug-in nut principle resulting in an extremely easy assembly/disassembly, even in tightest installation conditions, without additional screws on the valve housing
- as an alternative; smooth standard flanges can be used (as per DIN 2501)



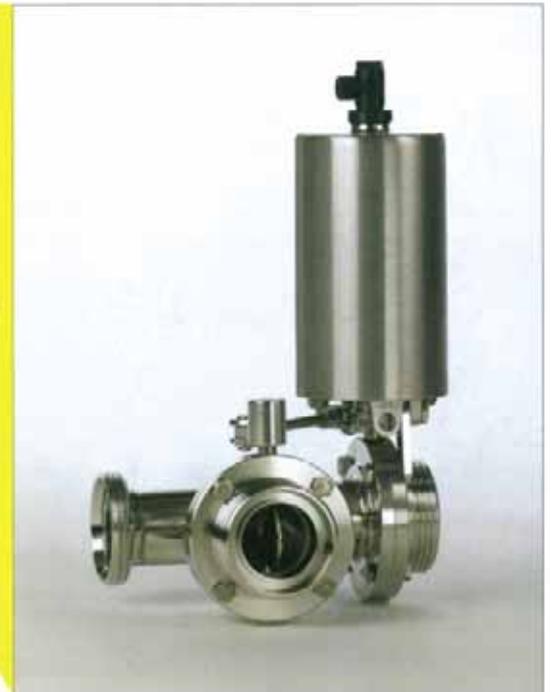
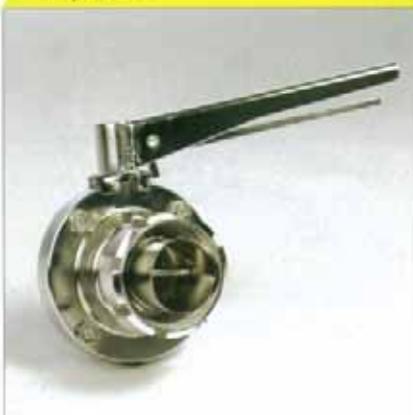
Special valves

For the integration of several functions in one fitting, for instance

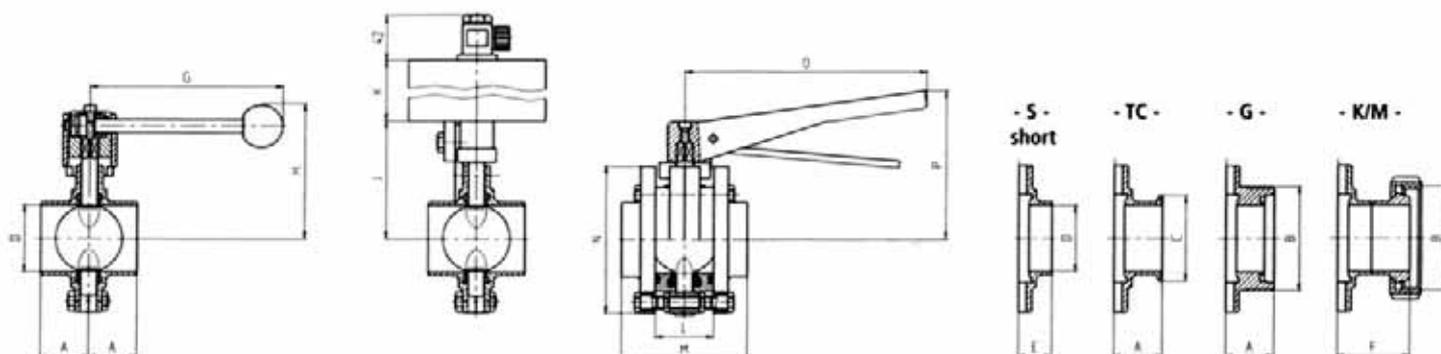
- hose connection with sight glass and sturdy carrying handle
- nominal size increasing connection
- automatic piercing system for bag-in-box systems
- special connections manufactured on request, etc.

Multi-way butterfly valve assemblies

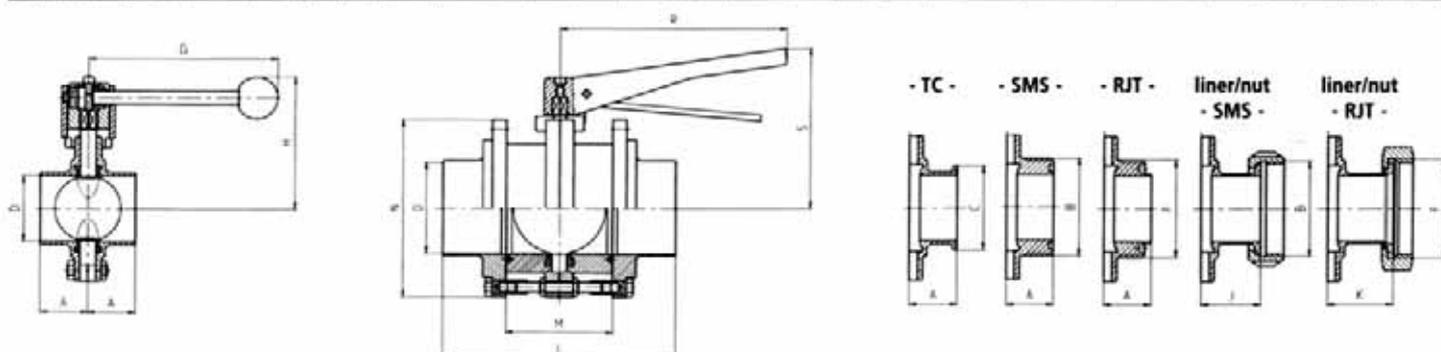
- butterfly valve multi-way combination, individually configurable, switchable in 2, 3 or 4 ways
- with manual
- or pneumatic single actuator
- or mechanically compulsorily coupled with rod assembly



Dimensions and Technical Data



DN	A	B (DIN)	C (TC)	D	E	F	G	H	J	K	L	M	N	O	P
10	32	Rd 28x1/8"	34	10	-	49	145	88	71	132	-	-	-	-	-
15		Rd 34x1/8"		16	-	-					-	-	-		
20		Rd 44x1/6"		20	-	50					-	-	-		
25	36	Rd 52x1/6"	50.5	26	20	42	145	92	74	132	64	104	84	180	101
32		Rd 58x1/6"		32	21	46					95	106	90		104
40		Rd 65x1/6"		38	25	51					102	108	96		107
50	38	Rd 78x1/6"	64	50	25	53	145	102	85	182	58	108	110	180	114
65		Rd 95x1/6"		66	25	57					111	127	123		
80		Rd 110x1/4"		81	30	67					118	142	131		
100	52	Rd 130x1/4"	119	100	32	76	185	128	112	220	84	148	162	141	
125	56	Rd 160x1/4"	154	125	40	74	215	146	129		164	200	230	166	
150	57	Rd 190x1/4"	166.8	150	-	77	265	161	143		164	230	320	194	



DN	A	B (SMS)	C (TC)	D	E	F (RJT)	G	H	J (SMS)	K (RJT)	L	M	N	R	S
1/2	32	-	25	9.4	12.7	-	145	88	-	-	-	-	-	-	-
3/4"		-		15.8	19.1	-			-	-	-	-	-	-	-
1	32 (59 by RJT)	Rd 40x1/6"	50.5	22.1	25.4	W 46.3x1/8"	145	94	40	45	128	64	84	180	101
1 1/2"		Rd 60x1/6"		34.8	38.1	W 59x1/8"			45	49	130	96	108		
2	36	Rd 70x1/6"	64	47.5	50.8	W 73.3x1/6"	145	102	47	51	134	58	110	180	115
2 1/2"		Rd 85x1/6"		77.5	60.2	63.5			W 86x1/6"	47	51	134	127		123
3	50	Rd 98x1/6"	91	72.9	76.2	W 98.7x1/6"	185	118	60	63	184	84	142	180	131
4		Rd 132x1/6"		119	97.4	101.6			W 124.4x1/6"	64	66		188		162
6	57	-	166.8	146.9	152.4	-	265	161	-	-	198	-	230	320	180

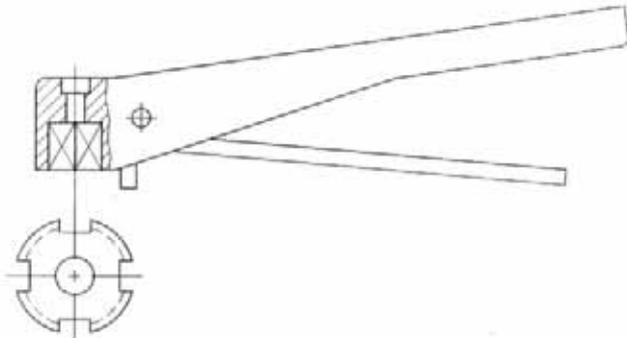
DN	maximum torque requirement [Nm]			max. Pressure* [bar]	Cv [m ³ /h]
	silicone	EPDM	Viton		
10	15	12	20	15	-
15	15	12	20	15	11
20	15	12	20	15	16
25	15	12	20	15	27
32	20	15	25	15	42
40	20	15	25	14	64
50	25	20	30	13	120
65	30	25	35	11	190
80	35	30	40	10	300
100	40	35	45	8	480
125	45	40	50	7	-
150	55	50	60	6	-
1	15	12	20	15	19
1 1/2"	20	15	25	15	56
2	20	15	25	14	112
2 1/2"	25	20	30	13	165
3	35	30	40	10	245
4	45	40	50	8	455

Material	Application	max. temperature	
		constant	short-term
Silicone caoutchouc, peroxid cured, grey	hot water mineral oil	+100°C +120°C	+120°C +150°C
Fluorcaoutchouc, carbon-filled, black (Viton)	hot water mineral oil	+90°C +165°C	+110°C +190°C
EPDM, peroxid cured, black (with integrated lubricant)	alc. dry hot steam	+120°C +145°C	+145°C +170°C
HNBR, peroxid cured, dark grey	hot water mineral oil	+130°C +150°C	+150°C +170°C

*In special case, please send enquiry

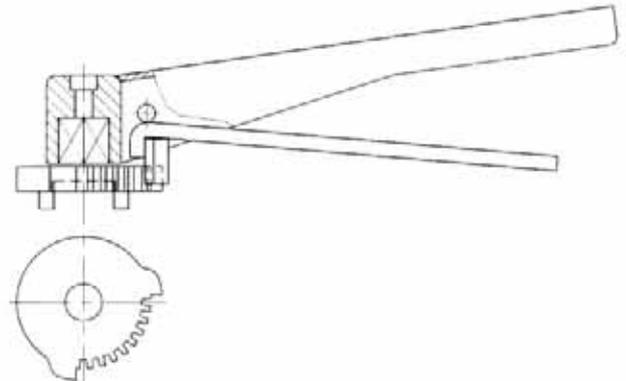
Die Schaltgriffe für GUTH-Scheibenventile

Zangengriff:



- extrem robust, ganz aus Edelstahl
- äußerst geringes Schaltspiel
- ergonomisch günstig
- hervorragend rastend
- rundum schaltbar 4 x 90°
- mehrere Größen (nennweitenabhängig) lieferbar
- abschließbare Version lieferbar

Feinraster-Zangengriff



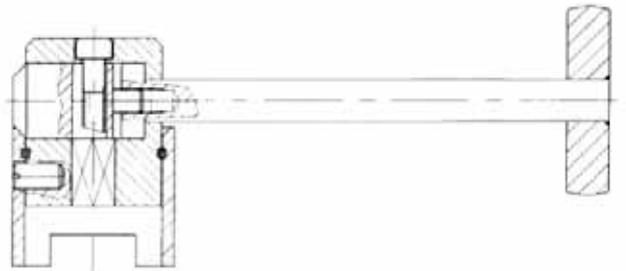
- hohe Schaltpräzision durch lasergefertigte Rasterscheibe
- integrierte Endpositionsanschlüsse 0° und 90°
- sichere Einrastung mit Selbsthemmung, 9 x 10°

Zuggriff



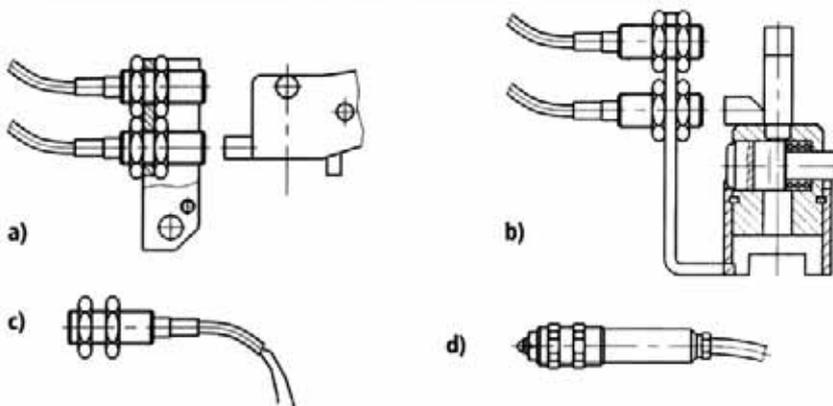
- extrem robust durch großzügige Dimensionierung der Bauteile
- sehr geringes Schaltspiel
- sicheres 90°-Schalten durch integrierte Endanschläge und automatisches Einrasten
- verliersicherer gelber Zugknopf
- Schaltrichtung und Grifforientierung 4fach frei wählbar
- mehrere Größen, nennweitenabhängig lieferbar

Drehgriff, stufenlos



- extrem robust, ganz aus Edelstahl
- sichere Klemmung in jeder Position zwischen 0° und 90°
- schnelles Lösen und Spannen mit nur kleiner Drehbewegung möglich
- integrierte Endanschläge

Zubehör



- a) Zangengriff mit Halter und Nocken für
 • einfache Rückmeldung • doppelte Rückmeldung
- b) Zuggriff mit Halter und Nocken für
 • einfache Rückmeldung • doppelte Rückmeldung

- c) Standard-Initiator 2-Draht-Technik, Gew. M 12
 Standard-Initiator 3-Draht-Technik, Gew. M 12
- d) mech. Qualitätsgrenztaster, IP 65

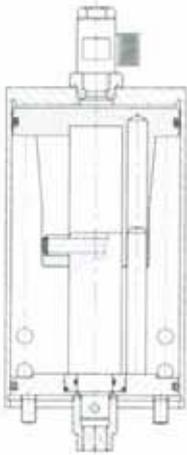


Qualifizierte Montage- und Funktionsprüfung

Das GUTH-Antriebsprogramm

Pneumatischer Edelstahl-Drehantrieb für Stellwinkel von 0 bis 90°

Bauart



Präzisionszylinder mit robuster Kolben-Drehwellen-Mechanik, besonders leistungsstark durch großzügige Dimensionierung und 2-phasige Drehmomenterzeugung. Einfachst demontierbar und damit wartbar, durch vorgespannte Antriebseinheit.

5 Baugrößen:

PS 0	PS 2	PS 3	PS 3,1	PS 4
Ø 76	Ø 102	Ø 133	Ø 168	Ø 219



Bauformen



- Ausführung für aufgesetzte Zusatzausrüstung, wie Steuerkopf, Stellungsregler oder pneumatische Zwischenpositionierung
- Standard- und Sonderkupplungen verfügbar
- Alle Versionen einfach oder doppelt wirkend lieferbar!
Durch zusätzliche Luftdrosseln sind auch sanftere Schaltbewegungen erzielbar.



Elektrodrehantrieb



- genaue Zwischenpositionierung, ohne Druckluft
- hohe Schaltpräzision
- hohes Drehmoment
- hohe Wiederholgenauigkeit

Adaption

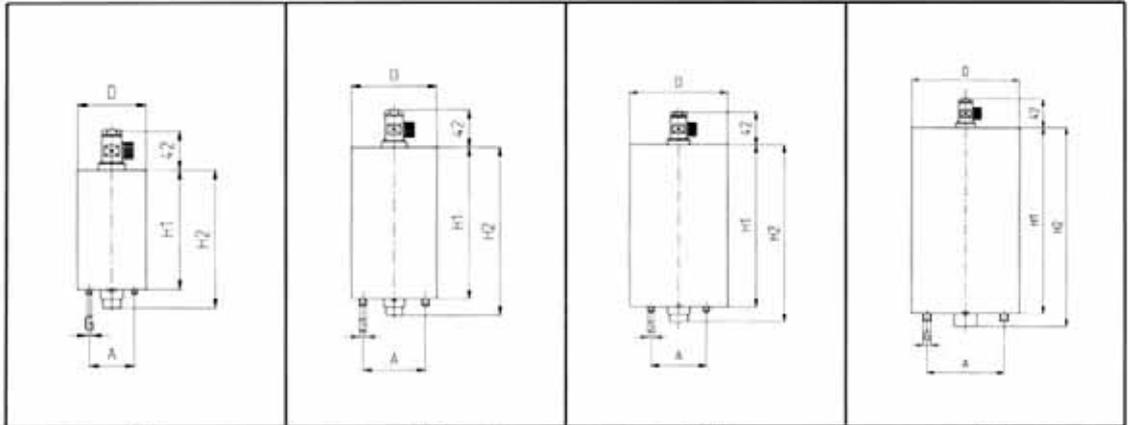


- **Scheibenventile aller Nennweiten:** Feingußbasisplatte, verschraubt mit zwei lasergeschnittenen Verbindungsstreben, geeignet für mehrere Nennweiten (!).
Ihr Vorteil: spannungsfrei betätigte Scheiben erbringen eine höhere Lebensdauer der Dichtung.
- keine zusätzliche Halterung für Initiatoren erforderlich.



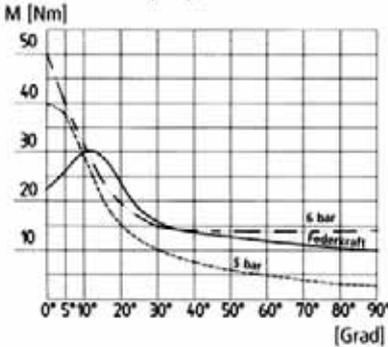
Abmessungen und Technische Daten

Basismodelle

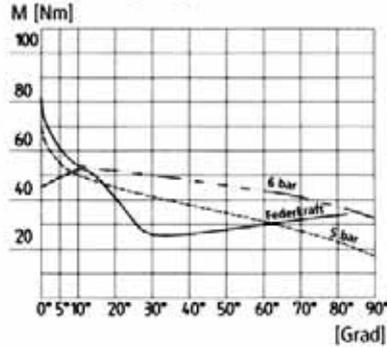


Typ	PS0		PS2		PS3		PS3.1	
	L/F	L/L	L/F	L/L	L/F	L/L	L/F	L/L
D	76	76	102	102	133	133	168	168
H1	132	132	182	182	220	220	290	290
H2	152	152	202	202	240	240	311	311
A	50	50	75	75	75	75	120	120
G	M6	M6	M8	M8	M8	M8	M12	M12
Standard-4kt [mm]	9.5	9.5	9.5/12	9.5/12	9.5/12/14	9.5/12/14	12/14	12/14
Antriebsfläche [cm]	38	38/33	70	70/62	124	124/113	200	200/178
Luftverbrauch [l/Doppelhub] bei 6 bar	1.1	1.7	2.6	4.8	5	9.6	9.8	19.7
Federvorspannung [kN]	0.5	-	1.6	-	2.3	-	4	-
max. Drehmoment [Nm], Luft gegen Feder bei Luftdruck [bar]	5 bar: 25 6 bar: 32	36 46	64 75	72 90	83 126	126 171	230 280	- -
Drehmoment durch Federkraft [Nm]	30	-	50	-	130	-	180	-
Nenn Drehwinkel	90°	90°	90°	90°	90°	90°	90°	90°
Mindestdruckbedarf [bar]	5	5	5	5	5	5	5	5
Luftanschluß	R 1/4" für Schlauch ø 6 x 1							

Drehmomentverlauf für GUTH-Drehtrieb PS0 (ø76), Luft-Feder



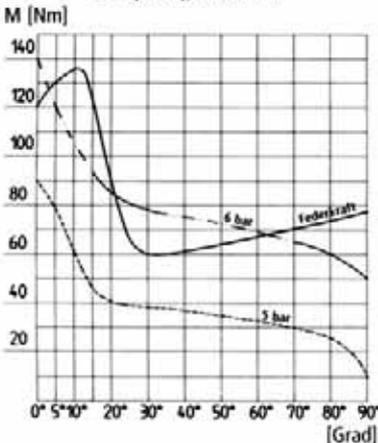
Drehmomentverlauf für GUTH-Drehtrieb PS2 (ø102), Luft-Feder



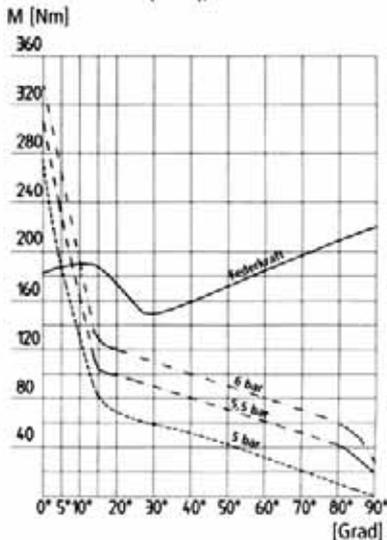
Drehmomentverlauf bei/durch:



Drehmomentverlauf für GUTH-Drehtrieb PS3 (ø133), Luft-Feder



Drehmomentverlauf für GUTH-Drehtrieb PS3.1 (ø168), Luft-Feder



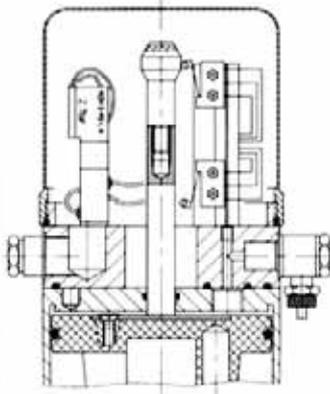
Drehantriebsmontage

Zubehör für GUTH-Drehantriebe

Das vollständige Programm für die unterschiedlichsten Anwendungen im Maschinen- und Anlagenbau

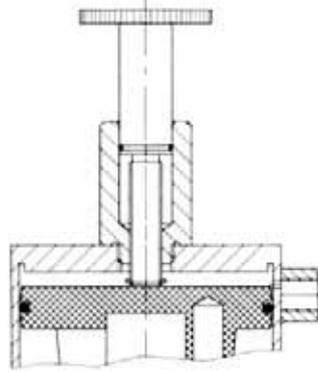
GUTH-Steuerkopfsystem:

robust und wasserdicht (IP 65)



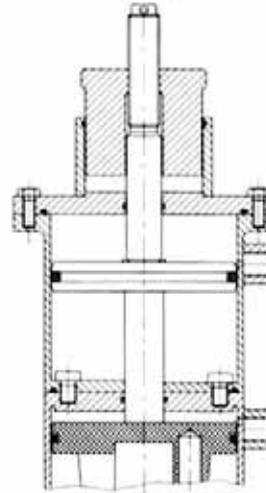
Schließbegrenzung:

manuelle Einstellung zuverlässig und präzise



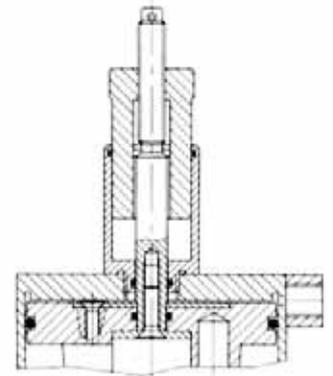
pneumatische Zwischenpositionierung:

3 Positionen, Feinjustage manuell



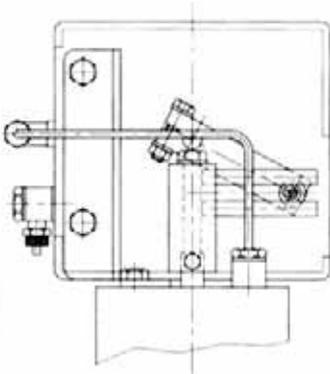
Öffnungsbegrenzung:

manuelle Einstellung zuverlässig und präzise



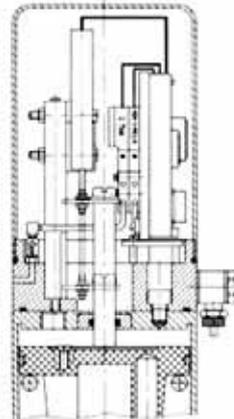
analoger Stellungsregler:

mit angepaßtem Regelverhalten für Auf-Zu-Ventile, pneumatisch oder elektropneumatisch



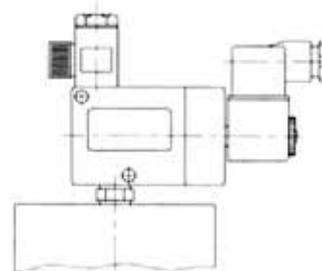
digitaler Stellungs- und adaptiver Prozeßregler:

- IP 65
- Prozeßanpassung
- verschiedene Ein-/Ausgangssignale
- kein Luftverbrauch



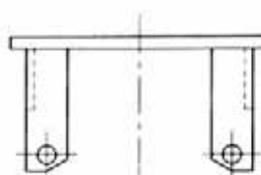
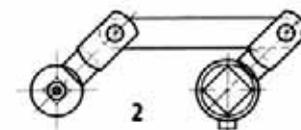
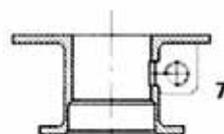
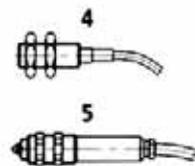
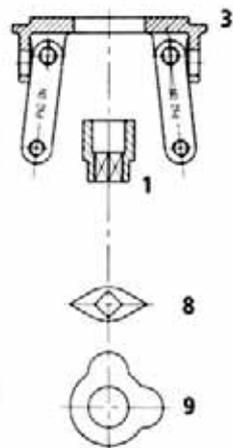
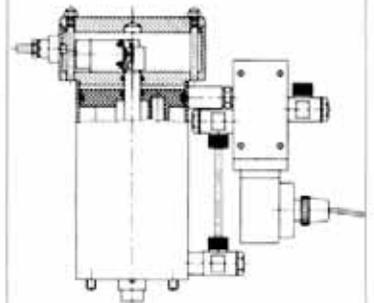
direkt angeschlossenes Magnetventil:

3/2- oder 5/2-Wege, wassergeschützt, äußerst robust



Ex-Schutzausstattung:

für zuverlässigen, normgerechten Exschutz



1. Kupplungsstück, verschiedene Ausführungen
2. Schaltkombination für Mehrwege SV
3. Feinußhalter für GUTH-Scheibenventile
4. Initiator, 2- oder 3-Drahttechnik
5. Grenztaster
6. Halter für Scheibenventil (große Nennweiten)
7. Halter für GUTH- und andere Kugelhähne
8. Stellungsanzeige für Scheibenventile
9. Nockenring
10. Stellungsanzeige für Kugelhähne

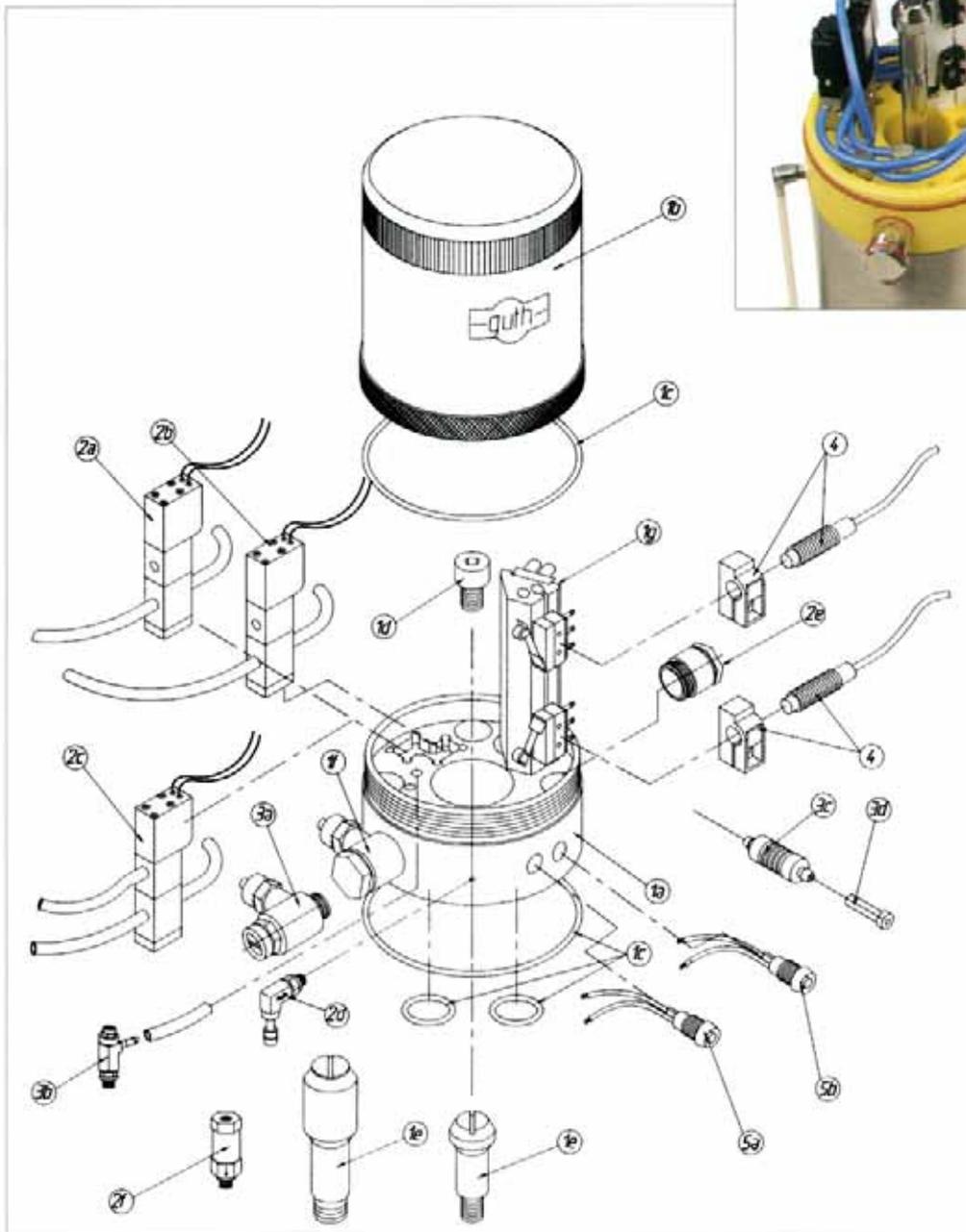
The GUTH control head system

Features:

- wide range of possibilities
- modular, i. e. simple construction
- easy to install
- extremely sturdy as a result of a rugged stainless steel protective cover
- reliable, waterproof thanks to an extensive chamber sealing (IP 65)
- bright position indicator lamps (optional)
- Metal connection elements



Quality control of the series in modern testing facilities



	POS.	DESCRIPTION
Standard	1a	Base plate ø 102 mm
	1f	– Pneumatic connection, outside, hose ID 4 mm
	2e	– Cable penetration, Pg11
	2f	– Air output direct line, chamber air ventilation via check valve
	1g	– Terminal block, labeled +2 micro-switches (IP 67) adjustable in height "open-close"
	1b	Stainless steel cover
	1c	O-Ring seal kit
	1d	Fastening screw (4 hexagon socket screw M8)
	1e	Control cam for turn and/or stroke actuator
	Accessories	2a
2b		second valve, like 2a, for multiphase stroke motion or secondary pneumatically actuated valve, e.g. mini-valves
2c		5/2-way pneumatic valve with connection nozzles including connection hoses ID 3 mm and connection cables. Standard voltage 24V –, for L/L-actuators
2d		Rotatable angle connection for L/L-actuators
3a		Supply air throttle
3b		Exhaust air throttle
3c		Supply air micro filter, filter permeability approx. 5 µm, with hose nozzles for hose ID 3 mm
3d		Replacement filter insert
4		Proximity switch with bracket and connection cable. Switches 24V
5a		LED-position display "open", green, with connection cables and location bore in base plate 1a
5b	LED-position display "closed", red, else like 5a	